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KEŚAVA MIŚRA

Edited with Translation, Notes and an Introduction in English

by

S. R. IYER

with a foreword

by

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॥ श्रीः ॥

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केशवमिश्रप्रणीता

तर्कभाषा

सम्पादकः

एस्. आर्. अय्यर्

(अंग्रेजी अनुवाद, टिप्पणी एवं प्राक्कथन सहित।)

पण्डितगौरीनाथशास्त्रिण

आमुखकथनसंयुता

चौखम्भा ओरियन्टालिया

प्राच्यविद्या एवं दुर्लभ ग्रन्थों के प्रकाशक एवं विक्रेता

वाराणसी दिल्ली

प्रकाशक

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चौक (चित्रा सिनेमा के सामने)
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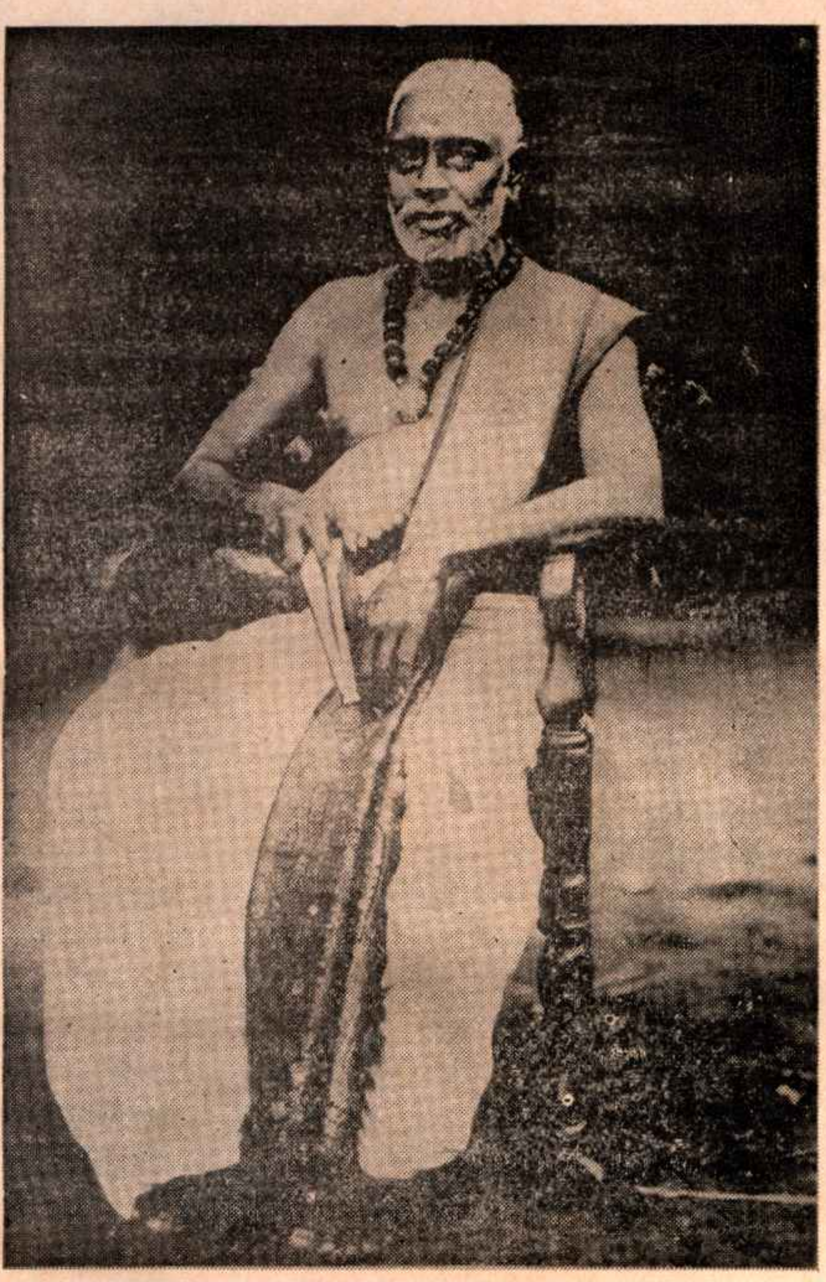
फोन : ६५४४४

FOREWORD

Keśava Miśra's Tarkabhāṣā is a manual of the sycretic school of Nyāya-Vaiśeṣika. It is based on the old Nyāya tradition and takes into consideration the sixteen categories of the Nyāyasūtra of Gotama. This proves beyond doubt that even in the age of Navya-nyāya the study of the old Nyāya texts were prevalent. The study of Tarkabhāṣā was very popular in all parts of India as is proved by the large number of commentaries written on it. Keśava's style is lucid and his arrangement of topics is scientific. Long ago Bodas published an edition of TB with exhaustive notes. The present edition by Śrī S. R. Iyer is highly informative and analytical. I am sure it will win the admiration of the students and teachers of Nyāya and will be considered as a landmark in the tradition of the textual study of Nyāya-Vaiśeṣika.

Feb. 14, 1979 **Gaurinath Sastri**

॥ श्रीगुरुभ्यो नमः ॥



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(१२-१-१८६४—१४-२-१६४५)

नैवागमप्रवणता न च शास्त्रवित्ति-
र्नो चाटुवाक्यरचनापटुता तथापि ।
अय्याख्यशास्त्रिवरदेशिकपादकञ्ज-
किञ्जल्करेणुकणिकैव ममावलम्बः ॥

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ABBREVIATIONS

An. Bh.	= Annam Bhaṭṭa
Ans.	= Answer
A. S. S.	= Anandasramam Sanskrit Series
अष्टा.	= अष्टाध्यायी
B. P. / भा. प.	= Bhāṣa Paricheda
B. S. P. S.	= Bombay Sanskrit and Prakrit Series
Com.	= Commentary
Ch. B. or Ch. Bh.	= Chennu Bhaṭṭa
ध. की. न्या. बि.	= धर्मकीर्ति-न्यायबिन्दुः
Ed. or Edn.	= Edition
G. S or G. N. S.	= Gautama Nyāya Sūtra
H. I. L.	= *History of Indian Logic*
H. N. N. M.	= *History of Navya Nyāya in Mithila*
K. P. J. R. I.	= Kāśī Prasād Jāyaswāl Research Institute
Kar. or कारि	= Kārikāvalī
K. M.	= Keśava Miśra
का. प्र.	= Kāvya-prakāśa
कु. श्लो. वा.	= कुमारिलश्लोकवार्त्तिकम्
Ms. or Mss.	= Manuscript or Manuscripts
N. S. or न्या. सू.	= Nyāya Sūtra (The numbers following denote the अध्याय, आह्निक and पाद)
N. V.	= Nyāya-Vaiśeṣika
न्या. भा.	= न्यायभाष्यम्
प्र. भा.	= प्रशस्तपादभाष्यम्
Q.	= Question
स.	= संयोग (referring to सन्निकर्ष)
सं. स.	= संयुक्तसमवाय "
सं. स. स	= संयुक्तसमवेतसमवाय "
सम.	= समवाय "

सम. स	= समवेतसमवाय (referring to सन्निकर्ष)
S. B. E.	= Sacred Books of the East
S. M.	= Siddhānta-Muktāvalī
T. S. / त. सं.	= Tarka-Sangraha
T. D. / त. सं. दी.	= Tarka-Sangraha-Dīpikā
V.	= Verse
वा. प.	= वाक्यपदीयम्
वि. वि. भा.	= विशेषणविशेष्यभाव
वे. प.	= वेदान्तपरिभाषा
V. S.	= Vaiśeṣika-Sūtra
वा. भा.	= वात्स्यायन भाष्यम्

INTRODUCTION

The six orthodox systems of Indian Philosophy popularly known as षड्दर्शनानि are सांख्य and योग, वैशेषिक and न्याय, पूर्वमीमांसा and उत्तरमीमांसा (or वेदान्त).

The Six Systems or षड्दर्शनानि

Because of some affinity in thought and doctrines these have traditionally been recognised as three pairs of allied systems (समानतन्त्राणि), sometimes designated as योगद्वय, न्यायद्वय and मीमांसाद्वय, though each has flourished independently and with a distinctive individuality, often acquiescing in and attacking the others just like the friendly quarrels among brothers in a large joint family. All these systems were originally intended to help in the exposition and interpretation of Vedic Texts which are believed to be the revelations of God and therefore infallible. That is why they are all called आस्तिकदर्शनानि in contrast to the heretic or नास्तिक systems such as those of the Cārvākas, the Buddhists and the Jainas, who do not believe in the authority and omniscience of the Vedas. Amidst all their differences in doctrines and methods one thing is common to all the orthodox systems, viz, that salvation is the sole end and aim of life with knowledge as the only door leading to it. It is natural to ask then which are the things worth knowing and which are not. The propounders of each system have answered this question in the light of their own thinking and speculation. These teachings have been codified in cryptic terse aphorisms called Sūtras modelled on the Sūtras of Pāṇini on grammar. These Sūtras form the basic foundation for each system, on which later scholars have built up imposing superstructures by their commentaries variously called as भाष्य, वार्तिक, वृत्ति, व्याख्या, टीका, etc. The Sūtrakāras, i. e. sages who first codified the crystallised findings of each system in the form of Sūtras, are according to tradition (1) कपिल for सांख्य; (2) पतञ्जलि for

योग; (3) कणाद for वैशेषिक; (4) गौतम for न्याय; (5) जैमिनि for मीमांसा and (6) बादरायण or व्यास for वेदान्त। Many a Western scholar have questioned the authorship of these sages on the ground that it is supported only by tradition and also because the same sage is sometimes known under different names; e. g., कणाद is known as उलूक and काश्यप, गौतम as मेधातिथि and अक्षपाद, and बादरायण as व्यास. But so far nothing has been brought to light to discredit the belief in the tradition ascribing the authorship as above. Except in the case of the सांख्य the Sūtras of the other systems have come down to us more or less in the original form. The original सांख्यसूत्र of कपिल is supposed to have been lost, as the one extant now under that name has been proved to be a very late production of the 14th century or so. The original teachings of that system were collected together in 72 small verses in what is called सांख्य-कारिका or सांख्यसप्तति by ईश्वरकृष्ण, sometime before the second century A. D. Since its appearance this work constitutes the basic authority for that system just like the Sūtras. Various scholars have tried their best to arrive at the periods when these Sūtras were redacted or codified; but due to lack of definite data all their findings have ended only in tentative guesses which may conform to or confirm some subsequent event or development of thought.

The Origin of वैशेषिक and न्याय

(2) Gautama Buddha, the founder of Buddhism and Vardhamāna Mahāvīra, the founder of Jainism, are now believed to have lived from 624 to 544 B. C. and from 599 to 527 B. C. respectively according to their own traditions. Any date before the rise of these two schisms is almost a blank—anybody's guess depending upon the particular evidence or material on which emphasis is stressed. The Buddhists and Jainas are believed to have collected together the verbal teachings of their founders in the form of Tipiṭakas and Āgamas a century or so after their Nirvāṇas. They might have been prompted to do this by seeing the Hindus clinging to their Vedic texts with unflinching faith and reverence. However that be, the conflict—pretty severe in many cases—

that arose among the adherents of the three faiths, and that stirred the minds of all intellectuals in the decades following the times of these two reformers, must have compelled all the parties to systematise their doctrines and to give expression to them in a methodical form and also to meet the arguments put forth by the opponents. The Buddhist Suttas definitely refer to the सांख्य and वैशेषिक systems and vaguely to the योग and न्याय. The canonical scriptures of the Jainas compiled about the same time contain a large number of logical terms such as प्रत्यक्ष, अनुमान, प्रमाण, प्रमेय, जाति, etc. which on the face of it appear to be borrowings and not their own creations. The mere reference to these systems positively proves the existence of the Hindu Darśanas in some form or other much earlier. No definite evidence is yet available to set aside the orthodox belief that all these systems had crystallised by this time into some definite form and were being circulated in learned circles from teacher to pupil. We are at present concerned with the वैशेषिक and न्याय systems only, which together constitute what is called Indian Logic. All the internal evidence pointed out by various scholars tend to show that the वैशेषिक Sūtras took shape sometime about 400 B. C. and that the न्याय Sūtras must have followed it not long afterwards, at any rate about 300 B. C.

आन्वीक्षिकी is न्याय

(3) Some scholars lay undue stress on the fact that कौटिल्य (circa 320 B. C.) has not mentioned specifically the न्याय or वैशेषिक as such among the important branches of learning which a king must learn. These branches of learning as mentioned by him in Chapter 2, विद्यासमुद्देश section of his अर्थशास्त्र, are (i) आन्वीक्षिकी (=logic and philosophy); (ii) त्रयी (=the Vedic scriptures); (iii) वार्ता (=Economics, trade etc.) and (iv) दण्डनीति (=the science of polity). In the concluding portion of the same chapter he explains the important subjects which come under these headings as follows :

"साख्यं योगो लोकायतं चेत्यान्वीक्षिकी । धर्माधर्मौ त्रय्याम् ।

अर्थानर्थौ वार्तायाम् । बलबलं चैतासां हेतुभिरन्वीक्षमाणा आन्वीक्षिकी लोकस्योपकरोति ।……

प्रदीपस्सर्वविद्यानामुपायस्सर्वकर्मणाम् ।
आश्रयस्सर्वधर्माणां शश्वदान्वीक्षिकी मता ॥"

आन्वीक्षिकी consists of सांख्य, योग and लोकायत. If the first two are taken to mean the philosophical systems of कपिल and पतञ्जलि, what does लोकायत connote ? It cannot be the Cārvāka system as कौटिल्य refers to that system separately in the same section. The word naturally means what has come down from the world; i. e, the course of reasoning which is in common use as handed down from posterity and which the common man accepts as reasonable on the strength of custom and practice. This is corroborated by the author when he explains further हेतुभिरन्वीक्षमाणा—that which investigates by reason. If this is not logic what else could it be ? The verse at the end stating that it is the beacon light for all branches of learning, strengthens this view. The same verse is found quoted by वात्स्यायन in his न्यायभाष्य on I-1-1 with the last line modified as विद्योद्देशे प्रकीर्तिता, thereby indicating the source of the verse. Perhaps the word आन्वीक्षिकी was more commonly used for logic than न्याय during the time of कौटिल्य. There is every reason to believe that the word न्याय was originally used to denote the पूर्वमीमांसा system. आपस्तम्ब and many ancient Smṛtis use this word to denote the reasoning of जैमिनि. Pāṇini uses this word in the same sense, vide his Sūtra III-2-122. Many later writers on पूर्वमीमांसा use that word as part of the title of their works, e.g., न्यायरत्नाकर of पार्थसारथिमिश्र, न्यायमालाविस्तर of माधवाचार्य, न्यायसुधा of गागाभट्ट, etc. The word was perhaps appropriated by the Naiyāyikas later on to denote exclusively the five-membered syllogism on which depends the whole course of reasoning to convince the opponent in a debate—cf. वात्स्यायन on I-1-1 under अवयव, 'सोऽयं परमो न्याय इति'. As a result of the great importance attached to this न्याय or five-membered syllogism, the system itself came to be designated as न्यायविद्या, न्यायशास्त्र, etc., thus supplanting the original term आन्वीक्षिकी. In this connection the words of Mr. M. R. Bodas in his introduction

to the edition of तर्कसंग्रह in the B. S. P. S. deserve close consideration :—"As a general rule we find that when a new school arises it coins its own phraseology to distinguish itself from its predecessors. In this case, however, the followers of Gotama appropriated an old word and that word stuck to them so fast as to become afterwards their exclusive property. The explanation, it seems, lies in the fact that the science of logic which afterwards developed into a separate system was originally the child of पूर्वमीमांसा" (p. xxxi).

वैशेषिकसूत्र

(4) The वैशेषिकसूत्र of कणाद् as extant at present contains ten अध्याय's or chapters, each divided into two parts called आह्निक and in all consists of 370 Sūtras. The first four read as follows :—

(i) अथाऽतो धर्मं व्याख्यास्यामः = Now we shall explain धर्म.

(ii) यतोऽभ्युदयनिःश्रेयससिद्धिः स धर्मः = That by which one attains prosperity and salvation is धर्म.

(iii) तद्वचनादाम्नायस्य प्रामाण्यम् = The authority of the Vedas is due to the exposition of this धर्म.

(iv) धर्मविशेषप्रसूतात् द्रव्य, गुण, कर्म, सामान्य, विशेष, समवायानां पदार्थानां साधर्म्यवैधर्म्याभ्यां तत्त्वज्ञानान्निःश्रेयसाधिगमः = The attainment of salvation comes about from the correct understanding of the (six) categories by discriminating their similarities and dissimilarities; (a) Substance, (b) Quality, (c) Action, (d) Generality, (e) Particularity, and (f) Inherence. This correct understanding itself is caused by a special kind of धर्म.

The rest of the whole work is taken up by the definition, exposition and elaboration of these six categories. That tangible categories as such are only the first three was well known to कणाद् as he definitely points out—अर्थ इति द्रव्यगुणकर्मसु (8-2-3). The next three are intellectual conceptions postulated to fulfil certain logical needs—सामान्यं विशेषं चेति बुद्ध्यपेक्षम् (1-2-5). Though कणाद् uses the word अभाव in its various senses at very many places he did not mention it as a separate category. Its inclusion as the seventh category was done by later scholars though it is not certain who effected it. उदयनाचार्य in his

लक्षणावली classifies the categories as भाव (=positive) and अभाव (=negative) while शिवादित्यमिश्र who followed उदयन within a short time divides पदार्थ's directly into seven classes, the six positive ones as above and अभाव as the seventh. "While the Aristotlean categories are a logical classification of predicates only, the वैशेषिक categories are a metaphysical classification of all knowable objects or of all reals. They are not, as the Kantian categories are, mere moulds of understanding. Nor are they, as the Hegelian categories are, dynamic stages in the development of thought. Hegel's is a philosophy of Absolute Idealism, a dynamic and concrete Identity-in-difference. The वैशेषिक system is a pluralistic realism, a philosophy of identity *and* difference, which emphasises that the heart of reality consists in difference. It is a mere catalogue of the knowables, an enumeration of the diverse reals, without any attempt to synthesise them. "(*A Critical Survey of Indian Philosophy* by Prof. C. Sharma, p. 176–Delhi edition)" Though the वैशेषिक system cannot stand the rigorous analysis of मीमांसा or वेदान्त as a school of philosophy its emphasis on scientific thinking and inductive reasoning is a marked improvement over the materialistic speculations of the times. In spite of its followers being dubbed as "अर्धवैनाशिकाः", its unrestricted speculations on many a metaphysical topic exercised such a profound influence on the development of other systems that it earned the eulogium "काणादं पाणिनीयं च सर्वशास्त्रोपकारकम् ।", which sticks to it to this day.

प्रशस्तपाद and commentators.

(5) The earliest commentary available at present on the V. S. is the पदार्थधर्मसंग्रह by प्रशस्तपाद. Though this is more an independent treatise than a भाष्य, it is considered as such as it supplements the original Sūtras in many respects. There is a reference to another commentary called रावणभाष्य on the V. S., in the प्रकटार्थविवरण, a gloss on Śankara's ब्रह्मसूत्रभाष्य, supposed to be written earlier than the 13th century. But for this reference no further information is available about this work. प्रशस्तपादभाष्य is all the more impor-

tant in that it gave the V. S. a theistic interpretation, thus redeeming the system from atheistic proclivities. Nothing is however known about the date or place of the author. Mr. Bodas in his introduction to the त० सं० has tried to prove that he is earlier to वात्स्यायन the author of न्यायसूत्रभाष्य. The authority and popularity of प्र. भा can be gauged by the large number of commentaries and sub-commentaries written on it by eminent scholars. Three of them deserve special mention and though they were printed some years back all of them are out of print at present. They are (i) व्योमवती by व्योमशिवाचार्य written before the 9th century; (ii) न्यायकन्दली by श्रीधराचार्य who fortunately gives the date of its composition as 991 A. D. He quotes and criticises the व्योमवती at several places; (iii) किरणावली by उदयनाचार्य (circa 1050). Though he does not mention श्रीधर by name he quotes from the न्यायकन्दली (as also from No. i) at a number of places mostly for refutation. The printed portion of the किरणावली extends only up to the end of गुण section and it is believed by many that the author did not live long enough to complete it. Besides sub-commentaries on these three, several reputed scholars like शङ्करमिश्र, पद्मनाभमिश्र, जगदीश भट्टाचार्य etc. have also commented on the V. S. शङ्करमिश्र has also written a very useful and independent gloss on the V. S., called उपस्कार which is very popular among N. V. students. It is really heartening to note that, even at the present time when the study of Sanskrit as a whole—not to speak of these classics—is at a low ebb, there are scholars trying to rekindle the interest in the V. S., vide the रसायन commentary on the V. S. by वीरराघवाचार्य printed from Madras in 1941.

न्यायसूत्र of गौतम

(6) The N. S. of गौतम is spread over five अध्याय's each sub-divided into two आह्निक's. The total number of Sūtras varies from 523 to 532 with different authorities. The fact that some of these authorities have tried to fix the total number of Sūtras in different ages proves that these Sūtras have been modified, enlarged or otherwise tampered with from time to time. (i) वाचस्पतिमिश्र has written a न्यायसूचीनिबन्ध giving the text of

the Sūtras and stating the number of Sūtras under each topic (प्रकरण). This might have been written by him as a guide or sequel to his classic commentary न्यायवार्त्तिकतात्पर्यटीका. At the end of this न्यायसूचीनिबन्ध we read as follows ;

"इति गौतमप्रणीतानि न्यायसूत्राणि। अध्याया: 5। आह्निकानि 10। प्रकरणानि 84। सूत्राणि 530*। पदानि 206। अक्षराणि 8411।

यदलम्भि किमपि पुण्यं दुस्तरकुनिबन्धपङ्कमग्नानाम्।
श्रीगौतमसुगवीनामतिजरतीनां समुद्धरणात्॥ १॥
संसारजलाधिसेतौ वृषकेतौ सकलदुःखशमहेतौ।
एतस्य फलमखिलमर्पितमेतेन प्रीयतामीशः॥ २॥
न्यायसूचीनिबन्धोसावकारि सुधियां मुदे।
श्रीवाचस्पतिमिश्रेण वस्वङ्कवसुवत्सरे॥ ३॥

(Vide न्या-भा published in the A-S-S)

The word समुद्धरणात् at the end of the first verse is significant in that during his time (10th Century) the text of the Sūtras was in a state of confusion. He has also taken pains to count even the total number of words and letters. The date of composition is given as 898 but no era is mentioned. Up till now scholars have taken it as the Vikrama Samvat corresponding to 841 A.D. But the late Dr. D.C. Bhattacharya in his "*History of Navya Nyāya in Mithila*", on the strength of new evidence brought to light such as the works of ज्ञानश्री and रत्नकीर्ति, has proved that it should be the Śāka era corresponding to 976 A. D.

(ii) The second attempt at fixing the text of the Sūtras is seen in the न्यायसूत्रोद्धार written by वाचस्पतिमिश्र II and printed at the end of Part I of न्यायमञ्जरी by जयन्तभट्ट in the Chowkhamba edition. It was probably a sequel to his commentary on N. S. called तत्त्वालोक (not published). He enumerates 531 Sūtras and the editor (or someone else) has added short notes

* Actually the number of Sūtras is 528. But what is meant by पदानि 206 is not clear as the words run to over two thousands. In the Chowkhamba edition of this न्यायसूची (Vide Dr. Ganganath Jha's edition with his own gloss) the Sūtras are mentioned as 528, but the other two as "पदानि 196: अक्षराणि 8385."

under each page showing the authority for the inclusion of each one. It ends with the verse :

शिवेनोरसि विधृतौ पादौ नत्वाऽपवर्गदौ ।
व्यलेखि न्यायसूत्राख्यं चैत्रे वस्वक्षिवासवे ॥

The date given 1428, if taken as the Vikrama era, corresponds to 1371 A.D.; but if taken as the Śaka era to 1506 A.D. The author's date has been fixed on good grounds between 1410 to 1490 (or "a man of the whole century", vide H. N. N. M. p. 158) and so the date given appears to be that of copying the book and the verse also of the copyist. This सूत्रोद्धार contains 531 Sūtras as also various readings and shows how changes have taken place in the text of the Sūtras within about five centuries after वाचस्पतिमिश्र I.

(iii) A third attempt is seen in the न्यायसूत्रवृत्ति of विश्वनाथ न्यायपञ्चाननभट्टाचार्य, the author of भाषापरिच्छेद and its commentary सिद्धान्तमुक्तावली. This वृत्ति written in 1634 A. D. was composed by him not for fixing the text or total number of the Sūtras, but only as a concise and useful guide for beginners without entering into any discussions. This purpose it serves very well even now. He has commented on only 523 Sūtras—vide the न्यायसूत्रवृत्ति printed along with the न्यायभाष्य in the A. S. S.

(iv) As late as 1924 Dr, Ganganath Jha in his edition of न्यायसूत्रभाष्य with his own gloss खद्योत and another called भाष्यचन्द्र, has commented on 532 Sūtras. He has however mentioned in the introduction that he has followed the text of the Sūtras as fixed by वाचस्पतिमिश्र I except in the 4 cases of deviation on the authority of the भाष्य or वार्तिक. The other commentary भाष्यचन्द्र of unknown date which ends abruptly at III-2-17 has 3 more Sūtras in the portion commented upon.

The Contents of N. S.

(7) The N. S. begins directly by enumerating 16 पदार्थ's, प्रमाण, प्रमेय, etc. (the first Sūtra quoted and explained by Keśava Miśra in the text), a true knowledge of which, according to Gautama, leads to salvation. The first chapter gives the general definitions of these 16 and the rest of the whole work is devoted to the discussion on and exposition

of these categories with a fair amount of digression on theological, physiological and non-logical topics. A study of the N. S. as a whole will not fail to strike the reader that the emphasis of the author is more on dialectics and the method of argumentation for vanquishing an opponent, which was evidently dictated by the rising influence of the Buddhists and Jainas and to some extent of the other Hindu systems as well. His emphasis on प्रमाण before explaining the Nyāya concept of knowledge which is equated to बुद्धि or intelligence, his devoting two whole chapters (IV and V) to two unimportant categories, जाति and निग्रहस्थान, and his inclusion of वाद, जल्प and वितण्डा among the *categories*, strengthen the view that the practice of argument even for a temporary triumph over the opponent was the principal aim of the author. This may perhaps account for his scanty and cursory treatment of प्रमेय which are only the seven categories of कणाद. His indebtedness to कणाद is revealed by his incorporating in toto or in part a few of the latter's Sūtras in his text as clarified by वात्स्यायन. The sophistic tendency of the N. S. has led to a loose knitting together of a fairly large mass of heterogenous matter, a good portion of which can even be considered irrelevant. While the N. S. as a whole is more radical, dialectical and realistic, the V. S. is more symmetrical, metaphysical and uncompromising in outlook. In spite of all these drawbacks, later authors have culled together the gems of truth and thought scattered here and there and built-up the strong and imposing edifice of न्यायशास्त्र which has stood the test of time and adorns an honoured place in the pantheon of philosophies.

(8) Dr. S. C. Vidyabhushan is of the opinion that अक्षपाद is not another name for गौतम but was a different person, that both have contributed to the production of the N. S., that प्रमेय, वाद and a portion of प्रमाण were first handled by गौतम under the name आन्वीक्षिकी, that the other categories and a fuller and systematic treatment of प्रमाण came from अक्षपाद and that the latter was the redactor of the आन्वीक्षिकी of गौतम into the present N. S. just as चरक was the redactor of अग्निवेशतन्त्र or the

आयुर्वेद of आत्रेय. Since there is no proof to hold that the two were distinct persons except that some commentators have referred in their introductory verses that the N. S. came from अक्षपाद, it is difficult to agree to any of these suggestions. वाचस्पतिमिश्र, जयन्त, उदयनाचार्य, श्रीधर and others refer to both the names without any distinction. The Buddhist and Jaina works refer to गौतमन्याय though the name अक्षपाद is also rarely found in them. The learned Dr. further mentions that the N. S. quotes from the लङ्कावतारसूत्र of unknown date and from the माध्यमिकशास्त्र of नागार्जुन (circa 250–320 A. D. according to him), and that the N. S. criticised by नागार्जुन refers to the न्याय portion as explained in the चरकसंहिता. Actually it would appear to be the other way round. More than 56 years have elapsed since Dr. Vidyabhushan first published his *History of Ancient Indian Logic* and enough material has accumulated since then which would require a reappraisal of the whole situation. With the material available to him at that time, his pioneering work no doubt still holds its position. But in such matters where collateral and internal evidence is the sole mainstay, opinions have to change with the advent of additional material or with a fresh interpretation of the old. Dr. D. R. Bhandarkar in his Introduction to the edition of तर्कभाषा in the B. S. P. S. has assumed as a foregone conclusion that they are one and the same person when he says that the N. S. is "ascribed to गौतम alias अक्षपाद." He has put forth certain other views such as (1) the N and V systems belong to one and the same school, (2) the former sprang up from the शैवदर्शन and the latter from the लकुलीशपाशुपतदर्शन, (3) कौटिल्य does not include न्याय or वैशेषिक under आन्वीक्षिकी in his scheme of learning for kings, as pointed out by Prof. Jacobi, even though the भाष्यकार (वात्स्यायन) equates न्याय with वैशेषिक; (4) this गौतम cannot be regarded as the author of the N. S. as it stands at present due to many additions found in it from Buddhist sources; (5) that अक्षपाद, कणाद and one वत्स were the pupils of a teacher सोमशर्मन् who is supposed to be the 27th *avatara* of Śiva as mentioned in the वायुपुराण. As already pointed out earlier all these can be considered only as bold suggestions

requiring corroboration by more substantial proofs other than Purāṇic references or benedictory verses.

न्यायभाष्य and Commentries

(9) The oldest available commentary on the N. S. is the भाष्य of वात्स्यायन who is also called पक्षिलस्वामिन्. Nothing is known about him except that he must have lived before दिङ्नाग, the founder of Buddhist logic. As a pupil of वसुबन्धु दिङ्नाग is supposed to have lived between 450 and 500 A. D. According to Dr. S. C. Vidyabhushan वात्स्यायन was a native of Conjeevaram and lived about a century before दिङ्नाग. The absence of any commentary on the N. S. during this long gap of about six centuries is inexplicable. If there had been any, none has come to light so far. वात्स्यायन is a forcible writer and a close reading of his भाष्य would show that he is well conversant with प्र० भा०. These two भाष्य's on the Sūtras of the two systems are regarded as supreme authorities by later authors to be commented and enlarged upon with due reverence and not to be corrected or refuted. This न्यायभाष्य was commented upon after a lapse of nearly two centuries by भारद्वाज-उद्योतकर in his न्यायवार्तिक. From the initial verse of this work it is clear that the interpretations of the भाष्य were highly clouded by adverse criticisms from Buddhists and Jainas and that he took upon himself the task of clearing all these clouds. Nothing is known about the personal history of उद्योतकर except that he is being refuted and criticised by धर्मकीर्ति, the greatest of all Buddhist logicians, who is supposed to have lived about 650 A. D. A host of Buddhist and Jaina scholars, all eminent in their own ways, flourished between 650 and 950 A. D. who criticised the orthodox Hindu systems especially the न्याय and मीमांसा schools. Hindu scholars also were not lacking in their efforts to counter these onslaughts. Recent endeavours of scholars have brought to light the names and works of many such authors, e. g. भासर्वज्ञ, शङ्कर (logician), सनातनि, त्रिलोचन, श्रीवत्स, श्रीकण्ठ, वल्लभ, etc. on the न्याय side and similarly on the मीमांसा side as well. But the न्याय works of this period which were direct commentaries on the सूत्र, भाष्य,

or वार्तिक were all driven to oblivion by the outstanding compositions of वाचस्पतिमिश्र I (circa 950–1000) and of उदयनाचार्य (circa 1050–1100).

(10) वाचस्पतिमिश्र I is a name to be conjured with in Hindu Sastraic literature. There are very few scholars who excel him in his depth of learning and in the inimitable style in which he presents the subject matter. His pen has wielded all the six systems of philosophy in a masterly manner, except वैशेषिक proper. He wrote भामती and तत्त्वसमीक्षा (not yet discovered) on वेदान्त, न्यायकणिका and तत्त्वबिन्दु on मीमांसा, तत्त्वकौमुदी on सांख्य, तत्त्ववैशारदी on योग and the न्यायवार्तिकतात्पर्यटीका on न्याय. We shall refer here only to this work. Its excellence and authority were such that it soon eclipsed almost all the works written after उद्योतकर up to his own times. It earned for him the titles टीकाकृत् and तात्पर्याचार्य. He refuted all the Buddhist objections up to his time, especially those of धर्मकीर्ति. He and his teacher त्रिलोचन who is the author of a work called न्यायमञ्जरी (not yet discovered) were the main targets of later Buddhists, especially ज्ञानश्री and रत्नकीर्ति. Within less than a century the great उदयनाचार्य, commented on the तात्पर्यटीका in his तात्पर्यपरिशुद्धि. उदयन's adoration of वाचस्पति verges on veneration as is evidenced by the eulogiums he gives to the latter such as :

वाचस्पति and उदयन

> "स्वच्छाः स्वभावशुचयोऽतिशयेन गुर्व्यो
> दुर्बन्धदुर्धरदुराग्रहदुःखभाव्याः ।
> टीकागिरो विषदपारदविप्रुषो वा
> येषां वशे ननु वशे जगदेव सर्वम् ॥
>
> (At the end of प्रमाण section of परिशुद्धि)

The N. S. together with these four famous commentaries, भाष्य, वार्तिक, तात्पर्यटीका and परिशुद्धि is often collectively spoken as the न्यायपञ्चग्रन्थी or चतुर्ग्रन्थी according as the Sūtras are included or excluded. उदयन has written besides किरणावली, already mentioned under वैशेषिक, and this परिशुद्धि; two independent works आत्मतत्त्वविवेक and न्यायकुसुमाञ्जलि. The former

was written with the sole purpose of refuting the Buddhists and the Jainas and from the incisive nature of his remarks in it, this may be his earliest work. The न्यायकुसुमाञ्जलि was composed with the main idea of establishing the existence of God through inference and in the course of his elaboration he touches upon almost all the important topics of the न्याय system. In fact, the कुसुमाञ्जलि along with the परिशुद्धि may be regarded to constitute the nucleus for the evolution of the Modern School of Indian Logic, नव्यन्याय; which was established on a sound footing by गङ्गेशोपाध्याय. The influence and authority of उदयन among later authors were so profound that he is exclusively referred to as आचार्याः in the plural (and sometimes also as न्यायाचार्य) in subsequent न्याय and other works.

Division into three periods

(11) The development of Indian Logic is usually divided into three periods; (i) the ancient period extending from the Vedic times to the end of the fourth century A. D. or till the appearance of the न्यायभाष्य of वात्स्यायन. This has been briefly described above. (ii) The medieval period spreading from 400 to 1200 A. D. or till the end of उदयन; and (iii) The modern period from 1200 A. D. onwards. During the medieval period the Buddhist and Jaina Schools of Logic prevailed predominantly over Hindu Logic which had to struggle strenuously for its self-preservation. On all three sides veteran scholars of extraordinary ability, genius and scholarship sprang up at different periods just like dazzling comets from unknown space dimming the brightness of existing stars for a while and again diving into unknown space, many not to be heard of again. The Jainas were not so vehement or bitter in their attacks on their opponents and their missionary and propagandist zeal was not so pronounced as that of the Buddhists. It was a three-cornered fight in which the Hindus in the end emerged victorious, aided among other things by the destruction of Buddhist monasteries and universities like Vikramasila by the Muslims. By 1200 A. D. Buddhism was practically driven out of India. Many Buddhist scholars fled to Tibet and

China carrying with them the originals of many Buddhist works which they were able to salvage out of the vandalism. Many of these were translated into Tibetan and Chinese languages with the help of local interpretors. Some of the originals have been irretrievably lost and some have been unearthed recently by the endeavours of a number of scholars; e. g. the works of अश्वघोष, नागार्जुन, असंग, सुबन्धु, दिङ्नाग, धर्मकीर्ति, ज्ञानश्री, रत्नकीर्ति, etc. These works throw a flood of light on the development of philosophical and logical thought in India during this period; bring to light at least the names of many unknown and forgotten authors and their works; and help in fixing the chronology of many writers not only in N. V. but also in other systems.

Buddhist logic

(12) There are frequent references to logical themes in the Buddhist scriptures, the Tipiṭakas and Suttas. The अङ्गुत्तर-निकाय in III-61-8 divides knowledge into six heads, those that arise from the six senses including the mind. In the अनुमान-सुत्त under मज्झिमनिकाय of सुत्तनिपात inference as prevailing at that time is described in some detail. The परिवार of विनयपिटक describes logical procedures for settlement of cases among the monks. Examples of debate (कथा) are given in the कथा-वत्थुप्पकरण of अभिधम्मपिटक. The मिलिन्दपह्ह written in the first century A. D. which is considered equal in importance to their scriptures, mentions that मिलिन्द (the Bactrian King Menander) "was well-versed in holy tradition and secular law; the सांख्य, योग, न्याय and वैशेषिक systems of philosophy; arithmetic, music, medicine; the four Vedas, the Purāṇas and the Itihāsas; astronomy, magic, causation and spells; the arts of war; poetry; conveyancing—in a word the whole nineteen."* About 78 A. D. the Kushana King Kaniṣka established a new system of Buddhism called महायान, the great path or vehicle. The followers of this system began to designate the old one as promulgated in the Tipitakas as हीनयान—the lower or small path. The former spread rapidly in Tibet, Mongolia,

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* Translation by Rhys David in S. B. E. Series, Vol. 35.

China, Japan etc. and the latter continued to flourish in Ceylon, Burma, Siam etc., while both systems grew side by side in India. Kaniṣka held a council of Buddhist monks, introduced the use of Sanskrit for Buddhist works in place of Pali which was in vogue and encouraged the writing of independent works on various aspects of the teachings of the Tipitakas. Thus arose a large number of Suttas which in general constitute the Scripture of the Mahāyānists and contain their philosophical, metaphysical, theistic and logical speculations. Based on these Suttas scholars like अश्वघोष, नागार्जुन, असङ्ग, वसुबन्धु, दिङ्नाग, धर्मकीर्ति, etc. composed all their philosophical treatises on Buddhism. But prior to दिङ्नाग no one appears to have written any systematic work on logic proper, though his predecessors have used logical me hods and principles in their works. दिङ्नाग wrote the प्रमाणसमुच्चय, न्यायप्रवेश, commentaries on these and some other smaller tracts. The originals of these are not available at present, but some of them have been restored in part into Sanskrit from their Tibetan translations. Buddhist tradition says that logic was handed down by दिङ्नाग through a succession of ten pupils from शङ्करवर्मन् to शीलभद्र (circa 635 A. D.) who was the teacher of Houen Tsang at Nalanda University. Before दिङ्नाग, नागार्जुन had refuted the N. S., especially Gautama's division of things into 16 categories and also adopted a three-membered syllogism. वात्स्यायन answered these objections in his न्यायभाष्य and दिङ्नाग in turn criticised वात्स्यायन. By about 600 A. D. उद्योतकर in his न्यायवार्तिक defended the Hindu position. But within half a century धर्मकीर्ति raised his cudgels against Hindu logic as a whole. He wrote about a dozen works the most important of which are the न्यायबिन्दु and the प्रमाणवार्तिक. Except the first one none of his works were available in original for a long time. Recently, due to the efforts of Mahāpaṇḍita Rāhul Sānkirtyāyana most of the originals were recovered from Tibet and have now been published. धर्मकीर्ति is considered the greatest Buddhist logician. His criticism of Hindu logic was so ruthless that for nearly three centuries the latter had to struggle hard for its self-preservation.

Scholars like भासर्वज्ञ, वल्लभाचार्य, जयन्तभट्ट, त्रिलोचन etc. had tried their best through the ages to defend the Hindu position. But, as pointed out earlier, it was वाचस्पतिमिश्र and उदयन who successfully resisted the onslaughts of the Buddhists, with the result that the efforts of their predecessors were eclipsed by their monumental commentaries not only in logic but in other systems as well. वाचस्पतिमिश्र and his immediate predecessors mentioned above were within a short period attacked by ज्ञानश्री of the Vikramasila University, the last great star of appreciable lustre in the vast galaxy of Buddhist logicians. ज्ञानश्री's works were recently discovered from Tibet and have now been published from Patna. He claims to have broken down the pillars of Hindu logic as he himself proudly proclaims :—

"दुर्नीताश्रमवेदिकादृढतरस्तम्भानमून् शङ्कर-
न्यायालङ्करण-त्रिलोचन-वचस्पत्याह्वयान् हेलया ।
उन्मूल्य क्षणभङ्ग एष विहितः..............."

(Vide ज्ञानश्रीमित्रनिबन्धावलि from Patna, p, 159)

The great उदयनाचार्य who followed ज्ञानश्री within a short period answered all his objections (as well as of others) in his आत्मतत्त्वविवेक and other works mentioned earlier. Some of his rejoinders to ज्ञानश्री with a slight twist in the latter's verse e. g. शब्दस्य कस्यचिद्वस्तुनि etc. have become classical literature. With उदयन came to an end the long drawn-out fray between the Hindus and Buddhists, mainly due to the extinction of Buddhist activities in India. This healthy conflict between the two systems gave a great impetus to the growth of Indian logic and epistemology.

Jaina logic

(13) The Jainas, like the Buddhists, seem to have followed the Hindu न्याय for their logical needs in the early stages, with suitable modifications to suit their theistic beliefs. In their canonical literature like the स्थानाङ्गसूत्र, भगवतीसूत्र, etc. प्रमाण is classified as of four kinds as in Gautama's N. S. The word हेतु besides denoting reason, is sometimes used as a synonym for प्रमाण.

तर्क is mentioned in the sense of debate; and points of defeat–निग्रहस्थानानि—are also described. भद्रबाहु (circa 433–357 B. C.) appears to be the earliest writer to discuss certain logical principles in his commentary दशवैकालिकनिर्युक्ति on his own work. His main object in this commentary was to establish certain principles of Jaina theism and for this he adopted a syllogism of ten members. These ten members are referred to and refuted by वात्स्यायन in his न्यायभाष्य. भद्रबाहु mentioned for the first time the स्याद्वाद or सप्तभङ्गीनय (or only नय in short), the seven-fold method of asserting the possible existence of a thing. These seven steps are :

(1) स्यादस्ति = relatively, a thing is (real).

(2) स्यान्नास्ति = relatively, a thing is not (real).

(3) स्यादस्ति च नास्ति = relatively, a thing is and is not (real).

(4) स्यादवक्तव्यम् = relatively, a thing is indescribable.

(5) स्यादस्ति चावक्तव्यम् = relatively, a thing is (real) and indescribable.

(6) स्यान्नास्ति चावक्तव्यम् = relatively, a thing is not (real) and also indescribable.

(7) स्यादस्ति च नास्ति चाऽवक्तव्यम् = relatively, a thing is and is not (real) and also indescribable.

All these assertions are judgements from different standpoints. The word स्यात् here does not mean 'may be' or 'probably', but means 'relatively'. What the Jainas want to convey is that *reality* has infinite aspects, that all judgements are conditional or relative, that absolute affirmation or absolute negation is erroneous, and that the infinitely complex nature of things admits of all kinds of opposite or contradictory predications from different stand-points. A host of best scholars among the Jainas have spent their energies in the elaboration and defence of this नय, with the result that their whole logic and epistemology may be supposed to centre round this theme. The next important and original writer we hear of is

उमास्वाति (circa 1-85 A. D.). In his तत्त्वार्थाधिगमसूत्र and in its भाष्य he divides प्रमाण as shown below. The word प्रमाण is used by him to denote both valid knowledge and its instrument.

- प्रमाण
  - परोक्ष
    - मति (Knowledge gained through the senses.)
    - श्रुति (Includes अनुमान, उपमान, आगम, अर्थापत्ति, संभव, and अभाव)
  - प्रत्यक्ष
    - लौकिक (Pertaining to ordinary men.)
    - यौगिक (Pertaining to yogins.)

It will be noticed that the words परोक्ष and प्रत्यक्ष are used by उमास्वाति in senses quite opposite to what they bear in Hindu logic as also in the works of later Jainas. He also describes नय, the various methods of comprehending things from particular standpoints. Still logic was subservient to theism and religion. It was with सिद्धसेनदिवाकर (circa 480–530 A. D.) that systematic logic is believed to have evolved among the Jainas. He wrote the न्यायावतार, a short treatise in 32 small verses, which itself forms a part of his greater work द्वात्रिंशत्-द्वात्रिंशिका. This न्यायावतार explains प्रमाण and नय and divides the former as प्रत्यक्ष and परोक्ष, direct and indirect in the ordinary sense. प्रत्यक्ष is again divided into व्यावहारिक or that arising through the senses, and पारमार्थिक or that arising through perfect enlightenment of the Soul. परोक्ष is divided into two, अनुमान and शब्द. The former is स्वार्थ and परार्थ which has only five members as in the N. S. Fallacies are described as those of साध्य, हेतु and दृष्टान्त and include both हेत्वाभास and निग्रहस्थान, though the method of their treatment differs considerably from Gautama's. स्याद्वाद is treated under नय which is of seven kinds. Later authors have elaborated on these

topics in their commentaries, sub-commentaries and independent treatises. समन्तभद्र, अकलङ्क, माणिक्यनन्दि, प्रभाचन्द्र, हेमचन्द्र, to name only a few, are some of the most outstanding authors who have enriched Jaina logic through the ages. This line of brilliant scholars extends up to यशोविजयगणि, a native of Dabhoi in Gujarat who lived between 1608–1688 A. D. He studied the Śāstras under Brahmin Pandits in Banaras and wrote over hundred works, some of which were important treatises in Jaina logic like न्यायप्रदीप, न्यायरहस्य, तर्कभाषा, न्यायखण्डखाद्य, etc. He was so proud of his talent and scholarship that he does not flinch from criticising and satirising his opponents violently, vide his fling on रघुनाथशिरोमणि, the greatest exponent of नव्यन्याय in Nadia—अभाग्यं गौडदेशस्य यत्र काणः शिरोमणिः (in न्यायखण्डखाद्य). With him ended this long line of scholars and there is no new development or fresh treatment in any branch of Jaina philosophy.

प्रकरणानि

(14) Before referring to the modern period of Indian logic a brief mention of tbe प्रकरण's or introductory manuals is quite useful. The literature on the V. S. and N. S. had become so vast by about the 10th century that it was practically impossible for an ordinary student to have enough knowledge of logic within a short time for the pursuit of his studies in other branches. Teachers in various seminaries must have realised this situation and to overcome it have summarised the principles of the two systems in simpler language avoiding discussions about rival schools. These summaries came to be known as प्रकरण's. These may be classed broadly under three heads as follows.

(i) वैशेषिकप्रकरणानि or those that treat exclusively of the six (or seven) categories of कणाद and the two प्रमाण's प्रत्यक्ष and अनुमान as in that system. Important examples are (a) सप्तपदार्थी and (b) न्यायलीलावती. The former was written by शिवादित्यमिश्र sometime about 1150 A. D. He divides things into seven categories including अभाव, and then defines the things enumerated without entering into any polemics. He

has six हेत्वाभास's, अनध्यवसित being the sixth. He has probably followed the प्र. भा. or the न्यायसार of भासर्वज्ञ in this respect. शिवादित्य divides सामान्य (generality) into two varieties जाति and उपाधि, perhaps for the first time. This work must have been popular for sometime as there are some half a dozen commentaries on it. The न्यायलीलावती also belongs to the same period as the first and is written by वल्लभाचार्य. This cannot be considered strictly a प्रकरण suitable for beginners; but is more an independent summary of the प्र. भा., written in a forcible, argumentative and intricate style. The author enters into polemics and refutes the Buddhists and exhibits his dialectical skill under all important topics. The work has attracted eminent scholars like वर्द्धमान, शङ्करमिश्र, भगीरथठक्कुर, रघुनाथशिरोमणि and others to write commentaries and sub-commentaries on it.

(ii) न्यायप्रकरणानि or those which explain mainly the 16 categories of गौतम, mentioning briefly about the वैशेषिक categories under प्रमेय. Under this category can be classed (a) न्यायसार of भासर्वज्ञ, (b) तार्किकरक्षा of वरदराज and (c) तर्कभाषा of केशवमिश्र. The न्यायसार treats of only three प्रमाण's omitting उपमान, mentions अनध्यवसित as the sixth हेत्वाभास and makes no mention of the वैशेषिक categories as such. The author was a Kashmirian and lived about the early half of the 10th century. He has himself furnished a voluminous commentary on it called न्यायभूषण which was discovered only recently and published from Banaras in 1969. It is a highly polemical work, is quoted profusely by later writers, both Hindus and Buddhists, and earned for the author the name भूषणकार by which he is more popularly known. It is this भूषणकार who is referred to by ज्ञानश्री by the word न्यायालङ्करण in the verse quoted on page 17 and whom he considers as one of the pillars of Hindu logic. (b) वरदराज was a native of Andhra parts and is supposed to have lived about the beginning of the 12th century. His तार्किकरक्षा is in three chapters written in small verses followed by the author's own commentary. The first chapter deals with fourteen out of the 16 categories of गौतम and the seven वैशेषिक

categories are treated under प्रमेय but separately from the twelve of the N. S. The second and third chapters are devoted to the exposition of the 15th (जाति) and 16th (निग्रहस्थान) categories respectively. (c) The तर्कभाषा of केशवमिश्र is described below under paras 17 and 18.

(iii) तर्कप्रकरणानि or such manuals which begin with the seven वैशेषिक categories as the basis but treat of the four प्रमाण's more prominently than other topics. These were written by authors who belong to the नव्यन्याय school and so have merged the two systems in a more rational manner than in the other two kinds of प्रकरण's. Only three of the most important ones are mentioned here as specimens. (a) तर्कामृत of जगदीश, one of the ablest commentators on the दीधिति of शिरोमणि, who lived between 1540-1600. The first part of the work deals with the seven categories of कणाद and the second part beginning with 'अथ प्रमा कथ्यते' treats of the four प्रमाण's eschewing discussions and the नव्यन्याय phraseology. This useful book did not gain the popularity it deserves probably due to the two प्रकरण's described below taking the field within a short time of its appearance. (b) The तर्कसंग्रह of अन्नंभट्ट is rightly the most widely read primer throughout India and has supplanted all the previous manuals by its excellence which is evidenced by the large number of commentaries—over fifty have been brought to light so far—which it has evoked. It begins with the enumeration of the seven वैशेषिक categories, elaborates the four प्रमाण's under बुद्धि, a quality, and is written in a very simple flowing language avoiding all dialectics. The author belonged to Andhra parts, studied at Banaras and was a great polymath having written valuable commentaries in व्याकरण, न्याय, मीमांसा and वेदान्त. He has furnished a valuable commentary on his own text called दीपिका and also commented on the आलोक of जयदेव. He lived in the early part of the 17th century and there is a common saying in the south to the credit of his scholarship. "काशीगमनमात्राद्धै नान्नंभट्टायते द्विजः।" (c) भाषापरिच्छेद (or कारिकावली) of विश्वनाथ (circa 1634) whose न्यायसूत्रवृत्ति was referred to earlier, consists of 168 small verses.

The first part deals with the seven categories as in the तर्कसंग्रह omitting the 24 qualities which is relegated to the second part. The four प्रमाण's are treated in detail under आत्मन् which is defined as the seat of knowledge etc. The author himself has furnished a very learned commentary on the verses called सिद्धान्तमुक्तावली which is a popular introduction to the नव्यन्याय techniques. This is read by beginners as the second primer after the तर्कसंग्रह, before entering into the polemical works of जगदीश and गदाधर.

नव्यन्याय **and** गङ्गेश

(15) Ever since the times of उदयन who has himself written two प्रकरण's one each on वैशेषिक and न्याय systems, several authors have tried to merge the two systems together in some form or other. But it was left to the genius of गंगेशोपाध्याय of Mithila to fuse the two systems together boldly into a grand comprehensive whole—तर्कशास्त्र. There is no parallel in the whole range of philosophical literature where a single book brought about such a revolutionary change in the realm of logic and epistemology of the Hindus. The तत्त्वचिन्तामणि of his often quoted as मणि wrought a change of outlook and treatment in discursive and dialectical works in all systems of Hindu philosophy written after the 14th century. The well-knit marshalling of all relevant dessertations into a coherent treatise took the world of learning by surprise. Matter gave place to methodology and attention became focussed on what the argument is for and against a topic rather than who argued it. The older school dealt mainly with the nature of things while the modern school concerned itself to the correct and meticulous definition of things. The 'categoristic' method of गौतम was replaced by the 'epistemological' method of गङ्गेश, which naturally involved "a huge over-growth of inflated and hair-splitting logic-chopping." The तत्त्वचिन्तामणि is divided into four chapters, each dealing with one प्रमाण beginning with प्रत्यक्ष. Each chapter is divided again into sections and subsections and in the course of an elaborate exposition of the nature and content of each प्रमाण,

गङ्गेश thoroughly discusses all the important and relevant topics of both the N. and V. systems, comparing and contrasting them with kindred topics in other systems in a masterly and authoritative manner. As is the case with a majority of great scholars of ancient India very little is known about the personal history of गङ्गेश. He was a Mithila Brahmin hailing from a village named छादन (not identified) as described in two शाखापञ्जि's or family geneologies written about 1726 A.D., which do not mention even his father's name. Dr. S. C. Vidyabhushan however states in his H. I. L. that "he was born in a village named Karion on the banks of the river Kamala 12 miles south east of Darbhanga." His period of literary activity has been fixed by Dr. D. C. Bhattacharya from 1325–1350 A. D. from an investigation of all the evidence available so far, vide H. N. N. M. pp. I00–104.

Commentaries : Mithila School

(16) Within a century of its appearance the मणि established a school by itself throughout India. गङ्गेश's son and disciple वर्धमानोपाध्याय was also a great logician. He commented on all the important works of उदयन and also on the 5th chapter of the N. S.; the लीलावती of वल्लभाचार्य and the खण्डनखण्डखाद्य of श्रीहर्ष. He does not appear to have commented on the मणि of his father as he does not refer to such a commentary in any of his available works, but only quotes from the मणि whenever necessary. Dr. Bhattacharya has unearthed the names of a number of scholors like वटेश्वर, जीवनाथमिश्र, गङ्गादित्य, घटेशोपाध्याय, यज्ञपति etc. Almost all of them have commented on the मणि, mainly in an antogonistic spirit as is inferred from their being quoted in later works. They are all supposed to have lived perhaps within the lifetime or within a few decades of गङ्गेश and/or of his son. वर्धमान might have naturally felt diffident to wield his pen against so many scholars of his own time and place. All their names have now been forgotten due to the authoritative and outstanding commentary of जयदेवमिश्र popularly known as पक्षधर (circa 1420–1500). His commentary named आलोक covers

only three chapters of the मणि, omitting the उपमान portion. He took lessons from his uncle हरिमिश्र and perhaps also from यज्ञपति whom he controverts in many places in the आलोक. He is also different from the authors of the same name, of the poem गीतगोविन्द and the drama प्रसन्नराघव. He is believed to have earned the epithet पक्षधर by his skill as a dialectician according to a traditional saying पक्षधरप्रतिपक्षो न लक्ष्यते लोकेऽस्मिन्. It is also said that जयदेव had encountered व्यासराय, the great Mādhva Pontif of Udipi Mutt, who was religious preceptor to Krishna Deva Raya of Vijayanagar and author of तर्कताण्डव and other polemical works. जयदेव had a number of distinguished pupils in his seminary like नरहरि (the son of his professor यज्ञपति), माधव (his own son), वासुदेव (his nephew), रुचिदत्त, सूचीकर, भगीरथ ठक्कुर etc. All of them as also other reputed scholars of the time like शङ्करमिश्र and वाचस्पतिमिश्र II both of whom were about a generation older to जयदेव, have commented on the मणि (a few on आलोक also) some for and others against गङ्गेश like शङ्करमिश्र. Most of them are now known only from references to them in later works. Only the commentary of रुचिदत्त gained some popularity in the south where a few scholars have written sub-commentaries on it. Thus, while the 14th century was dominated by गङ्गेश and his son, the next century saw a healthy conflict, between the approvers and opposers of गङ्गेश's commentators till at last the आलोक of जयदेव gained the upper hand. This period is considered to be the most glorious one for नव्यन्याय studies in Mithila till this glory was shifted to Nadia in Bengal in the next century.

Nadia School

(17) Early in the 16th century वासुदेवसार्वभौम of Bengal (circa 1480-1539) established a school of logic in Nadia. His pupilage under जयदेव of Mithila, as also that of his disciple शिरोमणि, are now considered to be mere myths. His father महेश्वरविशारद was perhaps the first Bengali scholar to comment on the मणि; and this commentary is referred to by the son in his चिन्तामणिप्रकाश, वासुदेव is reputed as the teacher of four emi-

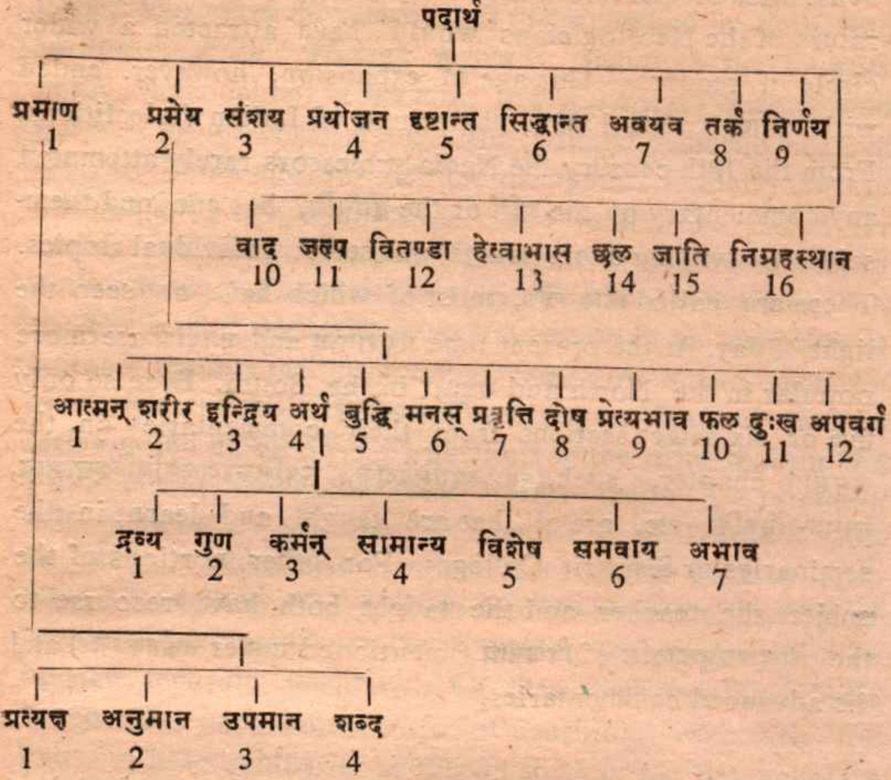
nent men :—रघुनाथशिरोमणि the logician; (ii) कृष्णानन्द the Tantrist; (iii) रघुनन्दन the Jurist and (iv) चैतन्य, the founder of the Vaishnava movement; all distinguished in their line of special study. Though वासुदेव is famous as the founder of the Nadia School of नव्यन्याय, it was his pupil शिरोमणि who raised it to university status. He initiated a special chair of logic at Nadia and was its first occupant. Similarly two of his co-pupils are reported to have established chairs for Tantra and law. To occupy the chair of logic one had to write an original commentary on the मणि (or later on, on the दीधिति of शिरोमणि) and also to prove in an assembly of learned Pandits the exceptional merits of such a work by his dialectical skill. शिरोमणि himself wrote learned commetaries called दीधिति on (1) portions of the मणि—that on the अनुमान portion being the most widely read—. (2) आत्मतत्त्वविवेक of उदयन; (3) किरणावलीप्रकाश and (4) लीलावतीप्रकाश both of वर्धमान, besides a few independent tracts such as पदार्थखण्डन, आख्यातवाद, etc. In course of time as the number of students increased, eminent professors seem to have opened separate seminaries on their own and thus Nadia became an important centre of learning, especially for logic. These seminaries produced some of the best scholars of Indian logic like कृष्णदाससार्वभौम, जानकीनाथ, रामभद्रसार्वभौम, भवानन्द, मथुरानाथ, गुणानन्द, जगदीश and गदाधर, to name only a few outstanding figures. In Banaras also the study of the चिन्तामणि and its commentaries flourished side by side and we hear of such able scholars like प्रगल्भमिश्र, रुद्रन्यायवाचस्पति, पद्मनाभमिश्र. रघुदेव, जयरामपञ्चानन, etc, from that place, who have all commented on the चिन्तामणि; आलोक and/or दीधिति. The efforts of all these brilliant scholars could not, however, supplant the आलोक of जयदेव which still holds its position as the first important commentary of the मणि. The fact that almost all the Nadia scholars who have commented on the दीधिति of शिरोमणि including जगदीश and गदाधर, have also invariably commented on the आलोक as well, would go a long way to prove the merit of the latter. But for its interminable involved phraseology shrouded in a maze of intricate

technical terms which to the uninitiated appears only as a "vast mass of perverted ingenuity", this voluminous literature of the Neo-logicians would have attracted a wider circle of readers. This age of expansion, however, ended with गदाधर (1603–1709), the prince of Indian dialectitians. From the 18th century the Nadia professors rarely attempted any commentary on the मणि or the दीधिति, but confined themselves to writing short tracts on select individual topics. These are called क्रोडपत्र's, most of which have not seen the light of day. At the present time मथुरानाथ and जगदीश are more popular in the North and गदाधर in the South. Even so only five or six select sections from their commentaries on the अनुमान chapter, such as व्याप्तिपञ्चक, व्यधिकरणधर्मावच्छिन्नाभाव, सामान्यनिरुक्ति, etc. are all that are taught and learnt in the seminaries or Sanskrit Colleges. For other portions of the subject the teacher and the taught both have recourse to the सिद्धान्तमुक्तावलि of विश्वनाथ (mentioned under तर्कप्रकरण) and its advanced commentaries.

तर्कभाषा

(18) The तर्कभाषा of केशवमिश्र is, as already mentioned, a न्यायप्रकरण which explains the subject matter in an easy language. The author does not enter into any detailed discussions on points of difference with other systems; but at the same time he discusses briefly the view points of the Buddhists and मीमांसक's on important topics just to show the logicians' dialectical methods. These digressions serve well to relieve the otherwise monotonous nature of the narrative. At the very outset he quotes the first Sūtra of गौतम enumerating the categories. The exposition of the four प्रमाण's is spread over half the book and that of the second category प्रमेय covers the major portion of the second half. The other fourteen categories are just noticed very briefly in the last few pages. The author's scheme of

incorporating the वैशेषिक categories will be clear from the following chart.



While describing the seven categories द्रव्य, गुण, etc. of the वैशेषिक system the author emphasises on important doctrines of that system such as the atomic theory, the origin of the notion of duality, द्वित्व, पाक theory, विभागजविभाग, etc. In all these matters he closely follows उदयन.

Keśava Miśra and Commentators

(19) The author styles himself only as केशव in the body of the book, vide the concluding verse at the end of the प्रमाण section, though in the colophon at the end of the work it is mentioned as इति केशवमिश्रप्रणीता तर्कभाषा समाप्ता. The word मिश्र suggests that he might be a native of Mithila. Internal evidence is also meagre as he does not quote any author except उदयनाचार्य besides the N. V. S. and their भाष्य's. He shows marked predilection to उदयन by

the way he tries to defend the latter's definition of असिद्धि (vide para 136). Dr. Peterson in his catalogue of Ulwar MSS. (1892) mentions that a तर्कभाषाप्रकाश by वर्धमान together with a sub-commentary on it by रुचिदत्त is preserved in the library of the Maharaja of Alwar (vide H. N. N. M. p. 111). If this is to be relied upon*—no one seems to have seen and described these since Peterson's notice of them—वर्धमान would be the first author to comment on तर्कभाषा. This fact may also point to केशवमिश्र's place of origin as Mithila. He is supposed to have lived in the later half of the 13th Century. No other work of his has come to light and he has perhaps not written any. After वर्धमान, the next early commentator is चेन्नभट्ट who was a protege of king Harihara of Vijayanagar (1377-1409 A. D.) whom he mentions at the end of his commentary. He is unaware of the great upheaval in logical studies in Mithila under गङ्गेश. The large number of commentaries on the तर्कभाषा—some 28 are enumerated in the B. S. P. S. edition—and the great variants in the text—nearly half the space in the text portion of the above edition covering the 1st 96 pages is devoted to the variants—is evidence of the popularity of the book in the different parts of India. All the same, it is surprising to find that this book was not so popular in Mithila itself as in the other parts of India. In the south it was being used as a beginners' text book till the appearance of the तर्कसंग्रह of अन्नम्भट्ट in the 17th century. Among the commentators as mentioned in the Bombay edition are found names of such scholars as नागेशभट्ट, दिनकरभट्ट, गौरीकान्त, and गोपीनाथ. None of them appears to be from Mithila except perhaps गोपीनाथ. Dr. Bhattacharya says that he belonged to Mithila (vide p. 64 of his H. N. N. M.) while Dr. Vidyabhushan states that "he was a Maharatta and lived in Banaras during the time of Raja Jai Sing" (vide p. 485 of his HIL). The commentaries of चेन्नभट्ट and गोपीनाथ were more popular in the South than in other parts as more copies of

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* It is regretted that no reply could be elicited from the present custodians of this collection even after repeated reminders.

these two are found there than in the North. The former is to the point, free from नव्यन्याय terminology, and generally easy for the beginner to follow without outside help. गोपीनाथ's is a weighty and learned one, and though written under the नव्यन्याय influence like his मणिसार, he has tried to be as clear as possible. This and the commentary of वर्धमान (if available now) deserve publication. Two other commentaries were published long ago, that of गोवर्धन from Poona in 1894 and that of विश्वकर्मन् from Banaras in 1901; but both are long out of print and I have not been able to see either.

The Present Edition

(20) The text of the तर्कभाषा followed in the present edition is mainly based on a transcript which I had made for my use as early as 1918 from a palm-leaf MS. in Grantha script. This MS. belonged to a learned Pandit, Shri Ramasubba Dikshitar, a native of Tinnevelly District and a friend of my Guru's father. Shri Dikshitar, I was told, came to our village* in connection with the renovation of a temple and after that function was over, he was prevailed upon to stay there for teaching Sanskrit to the youngsters of the family of the local Zamindar. He stayed in our village for about eight months and passed away there itself in September 1838, leaving behind his 3 or 4 Mss. One of these, a fairly bulky one 14″ × 2¼″, contained the तर्कभाषा in 18 leaves, the commentary on it by गोपीनाथ in the next 53 leaves and then a portion of the commentary of चेन्नुभट्ट up to the beginning of व्याप्यत्वासिद्ध (ending with तत्र प्रथमयु—) in 21 leaves, and then there were 25 blank leaves. It was written on both sides of the leaf, 8 (and sometimes 9) lines on a side and not in a very legible hand. The MS. was pretty old—at least about 150 years old even in 1918—the leaves had become brittle and smoky at the edges; and it showed signs of constant handling as there were corrections in between lines and in the margins on almost every page in different

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* This village, Chendamangalam, is situated at the mouth of the Periyar river some 20 miles to the north of Cochin.

hands. My transcript was carefully corrected by my Guru whose photograph adorns the frontispiece here. It was later used by a friend of mine, a Namboodiri from a village near Ottapalam. He had compared it with two other MSS. in Malayalam script got from two different sources. There was no appreciable change in the readings except for the addition or omission of such words as अपि, तु, च, एव, इति, etc. On comparing this transcript with the text in the BSPS edition of the तर्कभाषा it is found that it agrees in general with the MS marked C in that edition. The text presented here can therefore, I believe, be taken as the Kerala recension of the तर्कभाषा. When it was decided that these notes, which were originally given to certain students of the Delhi University who approached me for private tuition when the book was first introduced as a text book for M. A. Classes, should be printed in book form, I made some efforts to get the above mentioned MS. from my village in 1969. But I was told that all the MSS. there had been transferred elsewhere. So the original idea of including the commentary of गोपीनाथ was dropped, Besides the Bombay edition, I have seen three other editions of this primer with detailed glosses in Hindi.

1. With Hindi commentary by आचार्यविश्वेश्वर—printed at Banaras in 1953.

2 With Hindi commentary by बदरीनाथशुक्ल—printed at Delhi in 1968.

3. With Hindi commentary by श्रीनिवासशास्त्रिन्—printed at Meerut in 1972.*

All these editions as also the English translation of the book by Dr. Ganganath Jha (published from Poona

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* These three together are called A editions as there is pratically no difference in their texts and the Bombay edition is called B. Another edition with Sanskrit and Hindi commentaries published in the Haridas Sanskrit Series from Vārāṇasī (1977) came to my notice after this Ms. was sent to the press.

in 1924), though it came to my hands at a very late stage, were useful to me in various ways. Noticeable differences in readings of the text in these editions have been referred to in the notes here and there.

Acknowledgement

(21) I shall be failing in my duty if I do not record the help I derived from two similar publications, viz. (1) the edition of तर्कसंग्रह (Text only) by Dr. S. Kuppuswamy Sastri printed under the title *"A Primer of Indian Logic"* from Madras; and (2) the edition of the same book with two Sanskrit Commentaries by Mr. M. R. Bodas in the B. S. P. S. I am highly indebted to these two for the choice of many an appropriate phrase in English and for deciding how much explanation of a particular topic should be included for a beginner in the subject, keeping in view the back-ground equipment of a modern college student. Suggestions for correction and improvement by readers of the book will be gladly welcomed. My sincere thanks are due to the famous publishers Chaukhambha Orientalia, Varanasi, for readily agreeing to publish this book in spite of the fact that books with translation and notes in Hindi are more popular among students these days. I am also extremely grateful to Pandit Shri Gaurinath Sastry, Ex. Vice-Chancellor, Banaras Sanskrit University and the present President, Sanskrit Sahitya Parishad, Calcutta for kindly consenting amidst his various other duties, to write a foreword to this attempt after going through the proof-forms and for suggesting improvements and here words would not be adequate to express my gratitude to Dr. C. R. Swaminathan, the present Principal, Sri Lalbahadur Kendriya Sanskrit Vidyapeeth, Delhi, but for whose unstinted help an guidance this humble attempt would not have reached its present stage.

S. R. Iyer.

श्रीकेशवमिश्रप्रणीता

तर्कभाषा

पूर्वभागः
प्रमाणनिरूपणम्
(1) उपोद्घातः
(INTRODUCTION)

[1] बालोऽपि यो न्यायनये प्रवेशमल्पेन वाञ्छत्यलसः श्रुतेन ।
संक्षिप्य[1]युक्त्यन्विततर्कभाषा प्रकाश्यते[2] तस्य कृते मयैषा ॥

Translation—This (work) Tarkabhāṣā—an exposition of reasoning—is brought forth by me for the sake of such beginners who do not want to take pains and to exert, but desire to enter into (i.e. learn) the Nyāya system with a little hearing (i.e. learning from the teacher). (With this in view) the subject matter has been condensed (as much as possible) retaining all the important arguments (for proper understanding).

Notes—The word बाल here and in similar contexts means a beginner who has the necessary background, cf. बालानां सुखबोधाय क्रियते तर्कसंग्रहः (T. S.).

न्याय = logic or reasoning; नीयते विवक्षितोऽर्थः येनेति न्यायः = that by which the desired meaning is brought out clearly.

तर्काः न्यायशास्त्रयुक्तयः भाष्यन्ते प्रतिपाद्यन्ते अस्मिन्निति तर्कभाषा. The arguments or reasonings on which the science of logic is based are expounded here. संक्षेप or condensation can be effected in two ways, (1) by omitting verbal elaboration and (2) by leaving out some (items) from the subject matter. By the two words संक्षिप्य and युक्त्यन्वित, the author implies that he haso mitted only verbal elaboration and not anything important from the subject matter. The latter would mean that only particular portions of the subject have been explained, thus detracting its usefulness as an elementary text for beginners.

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1. A read संक्षिप्त though Ch. B. reads only संक्षिप्य.
2. C reads विरच्यतेg thouh Ch. B. has as printed here.

It is customary with Sanskrit writers to indicate the scope and purpose of their work before beginning the subject proper. This usually consists of four parts collectively called अनुबन्धचतुष्टय. (1) विषय = the subject matter or scope of the book; (2) प्रयोजन = the purpose; (3) अधिकारिन् = the proper person for whom the book is intended; and (4) संबन्ध = relation. Here by the word तर्कभाषा the subject matter, by न्यायनये प्रवेश the purpose, and by बाल the proper person for its study, have been indicated. The relation, which in almost all such cases is प्रतिपाद्यप्रतिपादकभाव—that of the treated and the treatise—is implied in the word प्रकाश्यते. This last one is necessary so that the author should not stray away from the subject proper by digressing upon side issues, thus detracting attention from the main point.

After introducing the reader to the scope and aim of his work, the author directly enters into the subject by quoting the first sūtra of Gautama in his न्यायसूत्र, which is the foundation stone for the Nyāya philosophy.

[2] 'प्रमाण-प्रमेय-संशय-प्रयोजन-दृष्टान्त-सिद्धान्त-अवयव - तर्क - निर्णय-वाद-जल्प-वितण्डा-हेत्वाभास-छल-जाति-निग्रहस्थानानां तत्त्वज्ञानान्निश्श्रेयसाधिगमः' इति न्यायस्यादिमं सूत्रम् । अस्यार्थः । प्रमाणादिषोडशपदार्थानां तत्त्वज्ञानान्मोक्षप्राप्तिर्भवतीति ।

Translation--"प्रमाण······गमः" is the first among the Nyāya Sūtras of Gautama. Its meaning is that by a correct and true understanding of the sixteen categories of substances beginning with प्रमाण one gets liberated from this world of birth and death.

1. प्रमाण = Means or instruments of valid knowledge.
2. प्रमेय = Objects of valid knowledge or cognition.
3. संशय = Doubt.
4. प्रयोजन = Purpose or motive.
5. दृष्टान्त = Example.
6. सिद्धान्त = Established conclusion.
7. अवयव = Members of syllogism.
8. तर्क = *Reductio ad absurdum.*
9. निर्णय = Decisive knowledge.
10. वाद = Discussion (to arrive at the truth).

11. जल्प = Argument (both constructive and destructive) or disputation.
12. वितण्डा = Mere destructive argument or wrangling.
13. हेत्वाभास = Fallacies in reasoning or fallacious reasons.
14. छल = Quibbling or specious argument.
15. जाति = Unavailing or futile objection.
16. निग्रहस्थान = Vulnerable point (clincher).

Notes—Gautama (also called Akṣapāda) is traditionally believed to be the founder of the Nyāya system of thought. It would perhaps be more correct to say that he was the first to codify the principles of that system in what are called Nyāya Sūtras. Sūtra here means a short pithy saying with the minimum words for expressing a proposition or statement, modelled on the Kalpa Sūtras and Paṇini's Sūtras on Grammar. A popular definition of sūtra widely accepted is as follows :

अल्पाक्षरमसन्दिग्धं सारवद्विश्वतोमुखम् ।
अस्तोभमनवद्यं च सूत्रं सूत्रविदो विदुः ॥

A sūtra should have the minimum words and should not give room for doubts. It should be meaningful and capable of covering all aspects of the point mentioned by it. It should not contradict any previous or succeeding sūtra and should be blameless in all ways.

The author, following Gautama, begins to explain these sixteen categories with the minimum discussion and arguments. The usual way of arriving at a conclusion is by putting a question in the form of a doubt or objection which is called पूर्वपक्ष,–the opponent's viewpoint—and then stating the accepted conclusion in the form of an answer, called सिद्धान्त.

[3] न च प्रमाणादीनां तत्त्वज्ञानं = सम्यग्ज्ञानं, तावद्भवति यावदेषां उद्देशलक्षणपरीक्षा न क्रियन्ते । यदाह भाष्यकारः—

'त्रिविधाऽस्य शास्त्रस्य प्रवृत्तिः, उद्देशो, लक्षणं, परीक्षा चेति ।'

तत्रोदेशस्तु नाममा[1]त्रसङ्कीर्तनम् । तच्चास्मिन्नेव सूत्रे कृतम् । लक्षणन्त्वसाधारणधर्मः[2] । यथा गोः सास्नादिमत्वम् । लक्षितस्य लक्षणमुपपद्यते नवेति विचारः परीक्षा । तेनैते लक्षणपरीक्षे प्रमाणादीनां तत्त्वज्ञानार्थं कर्तव्ये ॥

1. A has मात्रेण वस्तुसं · · ·
2. A & B have धर्मवचनम् insteɛd of धर्मः.

Translatian—तत्त्वज्ञान or correct understanding of these categories beginning with प्रमाण cannot be had unless their उद्देश or enumeration, लक्षण or definition, and परीक्षा or analysis are done. This has been said by the Bhāṣyakāra, commentator on the Nyāya Sūtras, (Vātsyāyana):—"The procedure in this Śāstra is threefold viz. enumeration, definition and analysis." Enumeration is the mere statement of the categories by name and this has been done here in the sūtra quoted above. Definition means the pointing out of their distinctive qualities or properties; e.g. that of a bull is that it is an animal with सास्ना(= dewlap) etc., as its distinctive characteristic. Analysis consists in the examination as to whether the definition fits in with the thing defined. The first having been already done, the other two, definition and analysis, have to be done now for a correct understanding of प्रमाण and other categories.

Notes—Enumeration also includes subdivision (विभाग) which is only a statement of the classes into which a thing could be divided. This is usually done after a thing has been defined, as it is necessary that all the subdivided classes should have the लक्षण or characteristic of the main thing; e.g. प्रमाण is first defined as the instrument of valid knowledge. Then only arises the desire to know how many such instruments are there and hence follows the division or classification of प्रमाण into four kinds; then the definition of each kind and their subdivisions. लक्षण has been translated as definition for want of a better word. The definition of लक्षण itself is असाधारणधर्म; i.e. a specific characteristic which enables the thing defined to be differentiated from other things as in the example given above. This happens when the लक्षण is free from the following three defects usually associated with it. (1) अतिव्याप्ति = overapplicability; i.e. the proposed लक्षण is applicable to things other than the one defined (लक्ष्येतरवर्तनम्), e.g. if the लक्षण of bulls is stated as शृङ्गित्व (= the quality of having horns), it is applicable to horned animals other than bulls and so goes beyond the लक्ष्य or thing to be defined. (2) अव्याप्ति = partial applicability (लक्ष्यैकदेशे वर्तनम्); i.e. the लक्षण covers only a portion of the लक्ष्य; e.g. if कपिलत्व (the quality of being brown coloured) is stated as the लक्षण for bulls it is applicable only to brown

coloured bulls and not to bulls of other colours. (3) असंभव = total inapplicability (लक्ष्यमात्रे अवर्तनम्); i.e. the लक्षण is not applicable at all to the लक्ष्य; e.g. if एकशफवत्व (the feature of having only one hoof) is taken as the लक्षण of bulls, it is not applicable to the bull species as they are all double-hoofed. Hence the लक्षण of a bull which is devoid of all the three defects is सास्नादिमत्त्व (having dewlap etc).

The purpose of having such a strict लक्षण is mainly differentiation and in some cases proper designation. (व्यावृत्तिर्व्यवहारो वा लक्षणस्य प्रयोजनं); e.g. 'The quality of having smell' गन्धवत्त्व is stated as the लक्षण of earth (पृथ्वी) and it serves as a valid reason for differentiating earthy things from non-earthy things; for smell is the specific quality of the element earth and does not abide in anything other than earth. What helps in differentiation also helps in specific designation.

The examination of a लक्षण to find out that it is devoid of all these defects and that it thus serves the purpose for which it is proposed, constitutes the third and most important process in Nyāya. Hence its impact on the other systems of thought like Mimāṁsā, Vedānta, etc. All other systems adopt this method of analysis in the elaboration of their topics.

(2) प्रमाणानि

[4] तत्रापि प्रथममुद्दिष्टस्य प्रमाणस्य तावल्लक्षणमुच्यते । प्रमाकरणं प्रमाणम् । अत्र प्रमाणं लक्ष्यं, प्रमाकरणं लक्षणम् । ननु प्रमायाः करणं चेत् प्रमाण तर्हि तस्य फलं वक्तव्यम् । करणस्य फलवत्वनियमात् । सत्यम् । प्रमैव फलं, साध्यमित्यर्थः । यथा छिदाकरणस्य परशोः छिदैव फलम् ॥

Translation—So the लक्षण of प्रमाण, the category mentioned first in the sūtra, is being stated. प्रमाण is the instrument or means of valid knowledge or right cognition (प्रमाकरण). Here (the word) प्रमाण is the लक्ष्य (object to be defined) and प्रमाकरण is the लक्षण. (Here the opponent puts in a query). If प्रमाण is the करण of valid knowledge, its result has to be stated, for as a rule a करण is always accompanied by a result. (Answer) True. The result is valid knowledge itself, i.e. the thing accom-

plished by the instrument, just as the result of the axe, the instrument for cutting, is the cutting or breaking up itself.

Next the two words in the लक्षण, प्रमा and करण, are being explained.

[5] का पुनः प्रमा, यस्याः करणं प्रमाणम् । उच्यते । यथार्थानुभवः प्रमा । यथार्थ इति अयथार्थानां संशयविपर्ययतर्कज्ञानानां निरासः । अनुभव इति स्मृतेर्निरासः । अनुभवो नाम स्मृतिव्यतिरिक्तं ज्ञानम् ॥

Translation—What then is प्रमा whose instrument is प्रमाण ? प्रमा means valid experience, i.e. an apprehension which accords with the true character of the object or thing apprehended. By the use of the word यथार्थ (valid or real), cognitions such as doubt (संशय), misapprehension (विपर्यय), and hypothetical apprehensions leading to *reductio ad absurdum* (तर्क) are avoided as all these are erroneous or faulty experiences. By using the word अनुभव (in the definition of प्रमा) remembrance (स्मृति) is excluded. [After this some printed editions have another sentence ज्ञातविषयं ज्ञानं स्मृतिः—Remembrance is cognition based upon what was experienced previously]. अनुभव here means all cognitions other than remembrance.

Notes—After defining प्रमा as यथार्थानुभव the author examines it to show that it is devoid of the defects mentioned above. If we do not qualify अनुभव by the adjective यथार्थ, i.e. if we say अनुभवः प्रमा, the लक्षण will be applicable to doubt etc. which are not लक्ष्य. Therefore the flaw of overapplicability अतिव्याप्ति will creep in. To avoid this the word यथार्थ is used by which doubt etc. are excluded from लक्ष्य as they are not valid (यथार्थ). Similarly the word अनुभव is used to exclude स्मृति or remembrance from the scope of the definition. Lastly to make the definition more explicit the word अनुभव itself is explained so as to include all knowledge other than स्मृति.

Next, the second word करण in the definition of प्रमा is being explained :-

[6] किं पुनः करणम् ? साधकतमं करणम् । अतिशयितं साधकं साधकतमम् । प्रकृष्टं कारणमित्यर्थः ।

Translation—What does करण mean (in the definition of प्रमा) ? It means the most efficient cause. That which is most

instrumental (in bringing about the final effect) is साधकतम and hence करण means the most efficient cause (= instrument).

Notes—The definition of करण in the text is only a repetition of Paṇini's Sūtra, I-4-42. Another definition usually adopted is 'असाधारणं कारणं करणम्'—that which is the most effective in producing the effect out of the various causes is करण. The author alludes to another definition of करण later on when he defines प्रत्यक्षज्ञानकरण, vide notes under para 24.

[7] ननु साधकं कारणमिति पर्यायः । तदेव न ज्ञायते किं तत् कारणमिति । उच्यते । यस्य कार्यात् पूर्वभावो नियतोऽनन्यथासिद्धश्च तत् कारणम् । यथा तन्तुवेमादिकं पटस्य । यद्यपि पटोत्पत्तौ दैवादागतस्य रासभादेः पूर्वभावो विद्यते, तथापि नासौ नियतः । तन्तुरूपस्य तु नियतः पूर्वभावोऽस्त्येव, किन्त्वन्यथासिद्धः, पटरूपजननोपक्षीणत्वात् । पटं प्रत्यपि कारणत्वे कल्पनागौरवप्रसङ्गात् । तेनाऽनन्यथासिद्धनियतपूर्वभावित्वं कारणत्वम् । अनन्यथासिद्धनियतपश्चाद्भावित्वं कार्यत्वम् ।

Translation—(In the above explanation) साधक and कारण are only synonyms and it is not known what a कारण is. This is being explained. That which invariably precedes an effect and is unconditionally necessary for it, is the cause of that effect; e.g. the threads, loom etc. are the causes of the cloth. When a cloth is being made, a donkey (the weaver's own) may be present there accidentally and so it exists before the effect (the cloth). [Therefore the donkey also may be considered a cause for the cloth]. But its presence is not invariable (नियत). [So it is not a cause]. Again, the colour of the thread is invariably precedent to the cloth. [So let that also be a cause of the cloth]. But it is not an unconditional necessity (अनन्यथासिद्ध). It is conditioned by the fact that the colour of the threads is a cause for the colour of the cloth, and if it is said to be a cause for the cloth as well, this would lead to unnecessary assumptions. Thus causality (कारणत्व) is defined as invariable and unconditional antecedence to the effect; and effectness (कार्यत्व) as invariable and unconditional consequence of the cause.

Notes—From the above definition of a cause it is clear that a cause should satisfy three conditions. (1) It must precede the

effect (पूर्वभावि). (2) Its precedence should be invariable (नियत) and not accidental as the weaver's donkey etc. (3) It should be unconditioned (अनन्यथासिद्ध). This अनन्यथासिद्ध, when referring to a cause, means that which could not be 'made out to be otherwise than indispensable'. This reduces to the fact that the invariable sequence between cause and effect should be made out through the invariable concomitance (व्याप्ति) between these two directly as also between their negations--in other words through a knowledge of अन्वय (affirmative reasoning) and व्यतिरेक (negative reasoning); e.g. A may invariably precede an effect B; still, on analysis, it may be found that A is not indispensable for producing B. If A were to be a cause it should be amenable to the affirmative concomitance (अन्वयव्याप्ति), "If B comes to effect A should be present"; as also to the negative concomitance (व्यतिरेकव्याप्ति), "Since A is not present B does not come to effect". In the case of the donkey, whether it is there or not, the cloth is produced (when all the other causes are present). It is thus अन्यथासिद्ध and therefore not a cause.

Later Naiyāyikas have classified all possible dispensable antecedents (अन्यथासिद्धाः) under five heads.

येन सह [1]पूर्वभावः कारणमादाय वा [2]यस्य ।
अन्यं प्रति पूर्वभावे [3]ज्ञाते यत्पूर्वभावविज्ञानम् ॥
जनकं प्रति पूर्ववृत्तितामपरिज्ञाय न [4]यस्य गृह्यते ।
अतिरिक्तमथापि [5]यद्भवेत् नियतावश्यकपूर्वभाविनः ॥
एते पञ्चान्यथासिद्धाः, दण्डत्वादिकमादिमम् ।
घटादौ दण्डरूपादि द्वितीयमपि दर्शितम् ॥
तृतीयं तु भवेद् व्योम, कुलालजनकोऽपरः ।
पञ्चमो रासभादिः स्यादेतेष्वावश्यकस्त्वसौ ॥

(कारिकावली, 19–22)

Dispensability can be judged in five ways :-

1. येन⋯⋯भावः-Thread (तन्तु) is the material cause of cloth. This thread is known only with its delimiting adjunct 'threadness' (तन्तुत्व). Therefore the latter is known as an invariable antecedent to cloth only through its counterpart the thread. Such a thing (तन्तुत्व) cannot be considered indispensable for the effect--here the cloth.

2. कारण···यस्य–Anything whose antecedence can be known only in relation to some other known cause, cannot be indispensable for that effect; e.g. the colour of the thread is an antecedent only by virtue of its substratum and not on its own. Therefore it does not come within the causal apparatus and so becomes dispensable.

3. अन्यं······ज्ञानम्:–When the antecedence of a thing is made out only after it is known to be the antecedent of some other effect, that cannot be taken as indispensable for the effect in question. Ether (आकाश) is known as the inherent cause of sound; and if it were to be a cause of cloth its antecedence can be known only after the former antecedence to sound is understood. Therefore it becomes dispensable to cloth.

4. जनकं···गृह्यते:–When the antecedence of a thing can be made out only through the person behind the effect, that becomes dispensable; e.g in making a cloth a weaver is necessery but the weaver's father, though antecedent to the cloth in question, comes into the picture only through the weaver and not in his own right and is therefore discarded as dispensable.

5. अति···भाविनः—All things extraneous to the bare minimum necessary for producing the effect must be considered dispensable; e.g. the donkey which has accidently strayed into the place of weaving (already explained in the text).

This classification need not be taken too literally; but only as an explanation of the different methods of determining dispensability. A little thought will make it clear that the difference between the first and second categories, as also between the third and fourth, is too slender to deserve separate classification. Moreover the fifth class is so comprehensive that it includes all the other four. That is why the author of the above verses concludes by saying that the last variety is the most important and necessary one.

[8] यत्तु कश्चिदाह 'कार्यानुकृतान्वयव्यतिरेकि कारण' मिति, तदयुक्तम् । नित्यविभूनां कालतो देशतश्च व्यतिरेकासंभवेनाऽकारणत्वप्रसगात् ।

Translation –Some one has defined cause as 'that which has affirmative and negative concomitance with the effect.' This

is not proper because in that case the eternal (नित्य) and all-pervading (विभु) substances, viz. time, space and ether, will turn out to be not causes-in-general, as their negation both in respect of time and space is not possible.

Notes--अन्वय and व्यतिरेक have been explained earlier. Time (काल), space (दिक्) and ether (आकाश), which are eternal and all-pervading, are considered to be causes-in-general (vide next para) for all effects. Since they are eternal their negation in any form is not possible and therefore they cannot have negative concomitance (व्यतिरेकव्याप्ति) with the effect, and so this definition will not cover such cases. Therefore this definition is open to the defect of partial applicability (अव्याप्ति). The objection is only to the definition of cause in this form and not to the fact that there should be invariable concomitance between cause and effect. This definition of cause is accepted by the Mīmāṁsakas and some Buddhists.

[9] तच्च कारणं त्रिविधं, समवाय्यसमवायिनिमित्तभेदात् । तत्र यत्समवेतं कार्यमुत्पद्यते तत् समवायिकारणम् । यथा तन्तवः पटस्य समवायिकारणम् । तन्तुष्वेव पटः समवेतो जायते, न तुर्यादिषु ॥

Translation--Cause is of three kinds; inherent cause (समवायि-कारण), non-inherent cause (असमवायिकारण) and causes-in-general (निमित्तकारण). Of these, inherent cause is that in which the effect inheres when produced. Cloth inheres in the threads and not in the shuttle etc. Therefore the former is the inherent cause of cloth (and not shuttle etc.).

Notes--The inherent cause is usually the material out of which the effect is produced and corresponds to the उपादानकारण of the Vedāntins. It is also translated as consequent cause and the other two as non-consequent cause and efficient cause.

Here a new relation inherence (समवाय) has been introduced and so the author begins to explain the same before proceeding to explain the other causes.

[10] ननु तन्तुसम्बन्ध इव तुर्यादिसम्बन्धोऽपि पटस्य विद्यते । तत्कथं तन्तुष्वेव समवेतः पटो जायते, न तुर्यादिषु ? । सत्यम् । द्विविधः सम्बन्धः संयोगः समवायश्च । तत्रायुतसिद्धयोः सम्बन्धः समवायः, अन्ययोस्तु संयोग एव ।

Translation--Q. Here cloth has relation with the shuttle etc. as it has with threads. Then how can you say that cloth is produced as inherent in threads only and not in shuttle etc. ?

Ans. It is true (to some extent). Relation is of two kinds, mere conjunction (संयोग) and inherence (समवाय). The relation between two inseparables is inherence, and that between any two others (which are not so intimately connected) is conjunction or contact.

Here the word 'inseparable' (अयुतसिद्ध) is used in a technical sense which requires explanation.

[11] कौ पुनरयुतसिद्धौ ? । ययोर्मध्ये एकमविनश्यदपराश्रितमेवावतिष्ठते तावयुतसिद्धौ । तदुक्तम् —

"तावेवायुतसिद्धौ द्वौ विज्ञातव्यौ ययोर्द्वयोः ।
अनश्यदेकमपराश्रितमेवावतिष्ठते ॥"

यथा अवयवावयविनौ, गुणगुणिनौ, क्रियाक्रियावन्तौ, जातिव्यक्ती, विशेषनित्यद्रव्ये चेति । अवयव्यादयो हि यथाक्रममवयवाद्याश्रिता एवावतिष्ठन्तेऽविनश्यन्तः । विनश्यदवस्थास्त्वनाश्रिता एवावतिष्ठन्तेऽवयव्यादयः । यथा तन्तुनाशे सति पटः । यथा वाऽऽश्रयनाशे सति गुणः । विनश्यत्ता तु नाशकारणसामग्रीसान्निध्यम् ।

Translation--Q. What are 'inseparables' (अयुतसिद्धौ) ?

Ans. When two things are so intimately connected such that one subsists on the other so long as the latter is not destroyed, they are called inseparables. This has been said by others. "Those two things are to be known as inseparables if one of them subsists on the other so long as the latter is not destroyed." Such inseparables are (1) the parts and the whole; (2) quality and substance; (3) motion and that which moves; (4) generality and the individual things (having it) and (5) speciality and the eternal substances. The whole etc. subsists in the parts etc. only till they are not destroyed. When the parts begin to perish, the whole etc. does not subsist on the other, e.g. when the threads perish the cloth is destroyed. Similarly when the substratum (i.e. the substance) is destroyed its quality also is lost. The state of being destroyed (विनश्यत्ता) means existence of all causes for destruction.

Notes—The relation inherence (समवाय) is accepted only in the case of the five 'inseparables' mentioned above. The whole (अवयवी) rests on its parts and is regarded as lost only when the parts disintegrate as in the case of the cloth and its parts, the threads. In the case of the next two, quality and motion, they get lost when their substratum perishes. But when the quality or motion is destroyed (e.g. when a white cloth is coloured blue or red, or when the motion of a ball is reversed) the substratum does not perish, but only inheres in the changed quality or motion. Generality (जाति or सामान्य) is a generic feature which inheres in all the individuals (व्यक्ति) of a class; e.g. गोत्व (cowness) is the generality inhering in all cows and it does not disappear till the cow perishes. In the fifth case of inseparables, speciality (विशेष) is accepted only in eternal substances and therefore the question of their destruction does not arise. The use of the word यथाक्रमं in the text above is not happy as it cannot be interpreted in its ordinary sense 'in the same order'; but has to be construed 'as applicable in each case' (as has been explained above).

Here, inherence (समवाय), generality (सामान्य) and speciality (विशेष) are categories adopted by the Nyāya school from the Vaiśeṣikas. Kaṇāda, the founder of the Vaiśeṣika system, has classified all substances into six categories. (1) द्रव्य = substance, (2) गुण = quality, (3) कर्म=motion (or action), (4) सामान्य = generality, (5) विशेष=speciality (or differentia) and (6) समवाय = inherence. Later authors have added a seventh one to this list, अभाव = non-existence or negation. The first six are therefore spoken of as भावपदार्थः = existent or positive entities. The Naiyāyikas have included all these under the broad heading "प्रमेय" (=knowables), vide Keśava Misra's own treatment under 'प्रमेय' in part II; (उत्तरभाग). That the relation between the table and its colour is not the same as that between the table and the book on it, can be easily understood. The former is called inherence (समवाय) and the latter is conjunction (संयोग). It would be easy to remember that in the above classification categories 2 to 5 (गुण, कर्म, सामान्य and विशेष) inhere in the first category द्रव्य. Also when one substance is produced out of another (e.g. a cloth from cotton, a jar from clay, a table from wood etc.) the relation between the component parts (cotton, clay etc. called

अवयव) to the finished products (the whole or अवयविन) is not the same as the mere contact between the hand and a stick or the table and a book; and so here also the relation is inherence. These five cases, where inherence is accepted, are summarised in the above verse (of the text.).

Generality or सामान्य is also called जाति and is an important category for the logicians. When we see different men or different beasts, our experience, however diverse it may be in other respects, shows a certain degree of uniformity which takes the form 'this is a man' or 'this is a beast' (अयं मनुष्यः, अयं मृगः). This uniformity in our experience can be explained only by assuming a generic feature common to all men or to all beasts. This generic feature is मनुष्यत्व (=manness) and मृगत्व (= beastness) which is common to *all men* and *all beasts* respectively, however different they may be in other respects. Thus मनुष्यत्व and मृगत्व are uniform generic characteristics of men and beasts, i.e. समानानां भावः or सामान्यम्. This generality is raised to the status of a category (पदार्थ) as it will be easier to explain many factors, according to the principle of economy in thought and words (लाघवन्याय). Briefly this is how the Nyāya and Vaiśeṣika systems recognise generality as a distinct category. This is classed as high (पर) and lower (अपर). सत्ता is the highest generality as it inheres in all the first three categories, while द्रव्यत्व, गुणत्व, कर्मत्व etc. are lower when compared to सत्ता. Similarly, पृथ्वीत्व, जलत्व etc. are lower generalities when compared to द्रव्यत्व and सत्ता, but greater (पर) when compared to घटत्व, पटत्व, नदीत्व, कूपत्व, etc. as these latter inhere only in a smaller number of things when compared to the former.

This सामान्य serves a double purpose; firstly to unify through universals on the basis of observed uniformities, as in the case of गोत्व (*cowness*) which gives an impression of all the individual heads under the term cow; and secondly to differentiate wherever experience requires it; e.g. गोत्व in particular cases can also denote differentiation from all things other than cows (गवेतरभेद). The first process of generalisation has led to several generalities being recognised, while the second of differentiation has resulted in postulating a self discriminatory feature called विशेष (speciality or particularity) being postulated as a differentia for everlasting substances (नित्य-

द्रव्याणि). Composite substances (अवयविनः) like a jar or a cloth can be distinguished from one another by means of their component parts. Earth, water, fire and air are producible substances (जन्यद्रव्याणि) and their component parts ultimately reduce to their lowest components, the atoms (अणु or परमाणु) of each of these four. The ultimate atoms of these four and the other five substances, आकाश (ether), काल (time), दिक् (space), आत्मन् (soul), and मनस् (mind) constitute the everlasting substances and a unique विशेष is ascribed to each of these. Of all the Indian schools of philosophy it is only the Nyāya-Vaiśeṣika that accepts this विशेष as a special feature. In fact the term वैशेषिक for the school of कणाद is itself based on this hypothesis of विशेष. Since the atoms of the four producible substances are alike in गुण, कर्म and जाति, there is no criterion for distinguishing an earth atom from a water atom etc. In order to account for their differentiation a विशेष or speciality is attributed to each atom. Since atoms are countless and eternal, विशेष's also are innumerable and eternal, and their relation to the everlasting substances (as stated above) is inherence. They are accepted as self-differentiated as well as self-differentiating as otherwise there would be endless regression (अनवस्था).

It may be shown that these three categories, सामान्य, विशेष and समवाय have been postulated to explain in their own way the unity and diversity in the first three categories (द्रव्य, गुण and कर्म) with reference to the principle of economy (लाघव). Even among the logicians there is difference of opinion as to whether all the eternal substances like ether, space etc. should have each this विशेष. Each *jiva* with its mind has its distinct experiences and other characteristics which could form its differentia from other *jivas*. But liberated *jivas* (मुक्ताः) cannot have such differentia unless a विशेष is ascribed to each, as all such *jivas* are considered to be alike in all respects. Regarding आकाश (ether) some logicians of the older school contend that a विशेष should be ascribed to it as the delimiting determinant of its causality to sound (शब्दसमवायिकारणतावच्छेदक), while others say it is not neccessary. Similarly काल and दिक् are to be differentiated by विशेष if they are to be distinct categories. But if they are classed under Iśwara (परमात्मा of the logicians), as

Raghunātha Siromaṇi and his followers of नव्यन्याय do, this acceptance of विशेष is not neccessary as a separate category, as Iśwara can be differentiated from all the rest by His eternal omniscience etc., without the aid of any man-made विशेष.

It would be useful to have a brief idea of the views of certain important Indian Schools of thought on this concept of जाति as compared to that of the Nyāya School. The grammarians, besides using the term जाति to denote a class attribute as in the Nyāya sense, use it for denoting caste, lineage and adherence to particular Vedic branches. This latter usage follows from their rules for derivation of terms denoting a particular class (cf. अपत्याधिकार under तद्धित). जाति according to them, is not only a generic attribute, but is so essential to any substance, that they call it प्राणप्रद (= life-giver). This idea is well summed up by Bhartṛhari when he says 'नहि गौः स्वरूपेण गौः, नाप्यगौः, गोत्वाभिसम्बन्धात्तु गौः–i.e., 'a cow neither becomes a cow nor a non-cow merely because of its physical nature; it is a cow because of its relation to cowness.' The grammarians do not accept this relation as समवाय nor call it a separate category.

The Bhāṭṭa School of Mīmāmsakas accept जाति as an eternal and perceptible category, and though it is present everywhere it is manifested only through a व्यक्ति. But the relation binding जाति to the व्यक्ति is not समवाय. They call this relation तादात्म्य which according to them means identity-cum-difference; भेदसहिष्णुरभेदः or identity compatible with difference. In a statement like 'this is a cow' (अयं गौः) 'this' denotes the particular व्यक्ति and 'cow' denotes the जाति cowness. Thus in this statement a जाति is equated to a व्यक्ति; but the question cannot be absolute, as in that case 'this' and 'cow' would become synonyms which they are not. Therefore they argue that on the strength of the preceptual experience the relation तादात्म्य should be accepted in such cases though, ordinarily difference is opposed to identity; for after all compatibility or otherwise of two things is determined by experience. Also, unlike the Naiyāyikas who ascribe सामान्य or जाति to the first three categories only, the Bhāṭṭas ascribe the highest जाति viz सत्ता to सामान्य also besides to the other three.

The Advaitins, who generally follow the Bhāṭṭas in such matters, accept the Nyāya theory of जाति to their profit and show that their highest जाति, सत्ता, is the one grand ultimate reality called Brahman and that all the lower ones like गोत्व, अश्वत्व etc., are only appearances superimposed on this grand सत्ता.

The Prabhākara school of Mimāmsakas accept जाति only in perceptible things and not otherwise; i.e. while गोत्व, घटत्व, मनुष्यत्व etc. are accepted as जाति's, greater generalities like सत्ता, द्रव्यत्व, गुणत्व etc. are not accepted as such. They however accept समवाय as the relation between two inseparable things, but consider it eternal only when the related objects are both eternal and not otherwise. They dismiss the relation तादात्म्य as an impossible jugglery of words.

The Buddhist and Jain philosophers do not accept सामान्य, समवाय and विशेष as separate categories and even in their refutation of the views of other systems there is nothing by way of constructive criticism.

It is necessary in this connection to know the principles which determine which of the attributes should be treated as जाति's and which otherwise. This has been summarised by Udayanāchārya, one of the greatest logicians of India who lived in the early part of the 11th century, as follows:—

व्यक्तेरभेदस्तुल्यत्वं सङ्करोऽथानवस्थितिः ।
रूपहानिरसम्बन्धो जातिबाधकसंग्रहः ॥ (किरणावली)

(1) व्यक्तेरभेदः = unity of the object, e.g. the sky is a single all-pervading category and therefore आकाशत्व cannot be a जाति. Similarly कालत्व and दिक्त्व. (2) व्यक्तेस्तुल्यत्वम् = Identity of the objects though the words may be different; e.g. नरत्व and मनुष्यत्व cannot both be जाति's as नर and मनुष्य, the व्यक्ति's denoted by these attributes, are only synonyms for the same object. (3) संकर. When two attributes are such that while they exclude each other in some places they exist together at another place, the defect is called संकर or सांकर्य; e.g. भूतत्व exists in the five भूत's पृथ्वी, जल, तेजस्, वायु and आकाश, and मूर्तत्व exists in the first four भूत's, and also in मनस्. Thus these two attributes co-exist in the first four भूत's but exclude each other in आकाश and मनस्. This defect therefore prevents both भूतत्व and मूर्तत्व

being accepted as जाति's. (4) अनवस्थिति = Lack of finality, or endless regression, e.g. a जाति cannot have another जाति, for in that case, there will be no finality for, each time we add one more जाति, it will require another one over it. (5) रूपहानि = Violation of the distinctive feature of the object, e.g. विशेष's cannot have a जाति, विशेषत्व, since by hypothesis they are self-differentiating and cannot have another generic attribute to distinguish them. (6) Want of proper relation is असम्बन्ध. If अभावत्व is accepted as a जाति we shall have to say that it rests on its substratum अभाव through the relation समवाय which is impossible. Similarly समवायत्व also cannot be a जाति.

From the above it is clear why जाति can exist only in the first three categories द्रव्य, गुण and कर्म. This raises another question. What is the position then of such common features as आकाशत्व, विशेषत्व etc. ? Such of those attributes which cannot be classed as जाति's due to any of the preventives (बाधक) mentioned above are called उपाधि's. Even among उपाधि's some logicians make a classification as सखण्ड and अखण्ड उपाधि's. सखण्डोपाधि's are those where the attributes can be explained by other means without reference to their substrata, e.g., मूर्तत्व is explained as क्रियाश्रयत्व = being the substratum of actions; आकाशत्व as शब्दसमवायिकारणतावच्छेदक = the determinant factor in the inherent cause of sound. Moreover the relation subsisting between them and their substrata is not a direct one as समवाय or संयोग. They are said to be परम्परासम्बद्ध or indirectly connected. अखण्डोपाधि's are those attributes which do not need another definitive expression for their understanding and which are connected to their substrata by a direct relation. Only those attributes which are connected with their substrata by means of समवाय and which do not come under the preventive conditions mentioned above, become जाति's; e.g. गोत्व, घटत्व etc. All other attributes where the relation, though direct, is not समवाय (e.g. स्वरूपसंबन्ध) are simply called अखण्डोपाधि's, e.g. विषय = object; विषयता (objectness) is its characteristic; and विषयतात्व (= being objectness) is an अखण्डोपाधि and its link to विषयता is self-link or स्वरूपसम्बन्ध—i.e. the related thing itself constitutes its relation. Similarly प्रतियोगितात्व (= being correlativeness) is another अखण्डोपाधि. It would be advantageous to understand the

subtle differences among जाति's and उपाधि's at an early stage to understand the laboured expressions of later Naiyāyikas.

Though almost all Naiyāyikas use the word सामान्य as a synonym for जाति, that term really includes उपाधि's also. The division of सामान्य into पर and अपर relates to only जाति's and not to उपाधि's. In fact, the सप्तपदार्थी of Sivāditya divides सामान्य into जाति and उपाधि and the जाति's into परा, अपरा and परापरा. Ordinarily it is only the जाति and अखण्डोपाधि that occur in our perceptual experience and hence the greater importance paid to them.

[12] तन्तुपटावप्यवयवावयविनौ । तेन तयोस्सम्बन्धस्समवायः । अयुतसिद्धत्वात् । पटतुर्योस्तु न समवायः । अयुतसिद्धत्वाभावात् । नहि तुरी पटाश्रितैवावतिष्ठते । नापि पटस्तुर्याश्रितः । अतस्तयोस्सम्बन्धस्संयोग एव । तदेवं तन्तुसमवेतः पटः । अतस्तन्तव एव पटस्य समवायिकारणम् । न तु तुर्यादि । पटश्च स्वगतरूपादेः । एवं मृत्पिण्डोऽपि घटस्य समवायिकारणम् । घटश्च स्वगतरूपादेः ।

Translation—(In the present example) the threads and the cloth are the component parts (अवयव) and the whole thing (अवयविन्) respectively. So their relation is inherence, they being inseparables. The relation between the cloth and the shuttle is not inherence, because these are not inseparables. The shuttle does not exist in the substratum of cloth, nor the cloth in the shuttle. Hence their relation is conjunction (संयोग) only. Thus it is in the threads that the cloth inheres and therefore threads are the inherent cause of the cloth and not the shuttle etc. The cloth is the inherent cause of its colour and other qualities (as they inhere in the cloth). Similarly the lump of clay is the inherent cause for the pot, and the pot itself for its colour etc.

Here the opponent (पूर्वपक्षिन्) questions the validity of the last statement that the pot is the inherent cause of its colour etc.

[13] ननु यदैव घटादयो जायन्ते तदैव तद्गतरूपादयोऽपि । अतस्समानकालीनत्वात् गुणगुणिनोः, सव्येतरविषाणवत्, कार्यकारणभावो नास्ति । पौर्वापर्याभावात् । अतो न समवायिकारणं घटादयः स्वगतरूपादीनाम् । कारणविशेषत्वात् समवायिकारणस्य । अत्रोच्यते । न गुणगुणिनोस्समानकालीनं जन्म । किन्तु द्रव्यं निर्गुणमेव प्रथम-

मुत्पद्यते । पश्चात्तत्समवेता गुणा उत्पद्यन्ते । समानकालोत्पत्तौ गुणगुणिनोः समानसामग्रीकत्वात् भेदो न स्यात् । कारणभेदनियतत्वात्कार्यभेदस्य । तस्मात् प्रथमे क्षणे निर्गुण एव घटो गुणेभ्यः पूर्वभावी भवतीति गुणानां कारणम् । तदा कारणभेदोऽप्यस्ति । घटो हि घटं प्रति न कारणम् । एकस्यैव पौर्वापर्याभावात् । नहि स एव तमेव प्रति पूर्वभावी पश्चाद्भावी चेति स्वगुणान् प्रति पूर्वभावित्वाद् भवति गुणानां कारणम् ।

Translation—(Objection). The colours etc. of the pot are produced at the same time as the pot. Therefore there can be no effect-cause relation between the qualities and the qualified as they are produced simultaneously, just like the right and left horns (of a bull) and as there is no sequence between the two (i.e. the pot and its colour). As such the pot etc. cannot become the inherent cause of the colour etc. in them; for the inherent cause is a specific cause.

This is answered as follows:-In fact the qualities and the qualified are not born at the same time. But all things are produced at first without any quality. Only afterwards qualities are born as inhering in them. If both were to be born at the same time they would have the same causal conditions. In that case there would be no difference between the two (the pot and its colour). When two things are different it is necessary that they must have different causal conditions. Therefore in the first moment the pot is produced without any qualities and is therefore antecedent to the qualities. As such the pot is the (inherent) cause for its qualities and there is difference in the causal conditions as well. The jar cannot be its own cause as no antecedence and consequence are possible with regard to one and the same thing. A thing cannot become its own antecedent and at the same time its own consequent. Therefore, being antecedent to its qualities, the pot becomes the (inherent) cause to them.

Notes—The objector at the outset supposes that the pot and its colour etc. are produced at the same time, in which case the necessary condition that the cause should be antecedent to the effect will not be fulfilled. The answer is that the supposition of simultaneousness is wrong; that all things at the first moment

of existence are born without any colour or other qualities and therefore the condition of causal antecedence is fulfilled.

This raises another question which is put as the next objection by the opponent.

[14] नन्वेवं सति प्रथमे क्षणे घटोऽचाक्षुषः स्यात् । अरूपिद्रव्यत्वात् , वायुवत् । तदेव हि चाक्षुषं यन्महत्त्वे सत्युद्भूतरूपवत् । अद्रव्यं च स्यात् । गुणाश्रयत्वाभावात् । गुणाश्रयो द्रव्यमिति हि द्रव्यलक्षणम् । सत्यम् । प्रथमे क्षणे [1]घटो यदि चक्षुषा न गृह्यते तदा का हानिः । (नहि सगुणोत्पत्तिपक्षेऽपि निमेषावसरे घटो गृह्यते ।) तेन व्यवस्थितमेतन्निर्गुण एव प्रथमं घट उत्पद्यते । द्वियीयादिक्षणेषु चक्षुषा गृह्यते । न च प्रथमे क्षणे गुणाश्रयत्वाभावादद्रव्यत्वापत्तिः । समवायिकारणं द्रव्यमिति द्रव्यलक्षणयोगात् । योग्यतया गुणाश्रयत्वाच्च । [2]योग्यतात्र गुणात्यन्ताभावाभावः ।

Translation—(Objection). In that case the pot in its first moment of existence cannot be seen as it is a thing without colour, just as wind; for (the rule is) that only that substance which has the qualities महत्त्व (greatness) and उद्भूतरूप (manifested colour) becomes visible. Moreover the pot will not be a substance at all as it is not the abode of any quality. The definition of a substance itself is that it should be the substratum of some qualities.

Answer—What you say is true. But what harm is there if the pot is not visible in the first moment of its existence? Even if it is conceded that the pot is born along with the qualities (colour etc.), it does not become visible at the moment of winking of one's eyes. It is therefore established that at the first moment of its origination a pot is born without any qualities and that it becomes visible from the second moment onwards. Nor can it be objected that the pot is a non-substance at its first moment of origination for want of being the abode of qualities. A substance can be defined as that

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1. B. has the word परमसूक्ष्मो before घटः and Ch. B. approves of that reading.

2. B. reads this sentance as गुणाश्रयत्वं तु गुणात्यन्ताभावानधिकरणत्वं, which is evidently an interpolation from Ch. B's. com.

which is an inherent cause. The other definition (being the abode of qualities) can also be justified in the case of the pot at the first moment of origination, as it is capable of being such an abode. Such capability here is only the absence of absolute negation of qualities.

Notes—When a substance is defined as the substrate of qualities what is meant is that it should be capable of being such a substrate and it does not matter if at certain moments of its existence it has no qualities for it takes up qualities at the second instant and therefore absolute negation of qualities cannot be predicated.

Here the sentence (नहि .... गृह्यते) within brackets is not commented by Chennubhaṭṭa and perhaps does not form part of the original text though the printed texts and some MSS. have it. Moreover it has been alluded to previously and answered (vide the sentence समानकालोत्पत्तौ etc. in the previous paragraph.)

After explaining the inherent cause in some detail, the second type of cause, viz. the non-inherent one, is being explained.

[15] असमवायिकारणं तदुच्यते यत्समवायिकारणप्रत्यासन्नमवधृतसामर्थ्यम् । यथा तन्तुसंयोगः पटस्याऽसमवायिकारणम् । तन्तुसंयोगस्य गुणस्य पटसमवायिकारणेषु तन्तुषु गुणिषु समवेतत्वेन समवायिकारणप्रत्यासन्नत्वात्, अनन्यथासिद्धनियतपूर्वभावित्वेन पटं प्रति कारणत्वाच्च । एवं तन्तुरूपं पटगतरूपस्याऽसमवायिकारणम् । ननु पटगतरूपस्य पटस्समवायिकारणम् । अतस्तद्गतस्यैव कस्यचिद्धर्मस्य पटरूपं प्रत्यसमवायिकारणत्वमुचितम् । समवायिकारणप्रत्यासन्नत्वात् । न तु तन्तुरूपस्य । तस्य समवायिकारणप्रत्यासन्नत्वाभावात् । मैवम् । तत्समवायिकारणसमवायिकारणप्रत्यासन्नस्यापि परम्परया समवायिकारणप्रत्यासन्नत्वात् ।

Translation—A non-inherent cause is that which adheres closely to the inherent cause and at the same time keeps up its causal ability; e.g. the conjunction of the threads is the non-inherent cause of the cloth. This conjunction, a quality, inheres in the threads, the qualified, which are the inherent cause

of the cloth. It also fulfils the causal condition of being an indispensable antecedent. Similarly the colour of the threads is the non-inherent cause for the colour of the cloth. (An objection is being raised to this). Cloth is the inherent cause of its colour, and it would be more appropriate if some attribute of the cloth itself is made the non-inherent cause of the colour of the cloth as that attribute will be more closely associated with the inherent cause; while the colour of the threads, if made the non-inherent cause, does not adhere closely to the inherent cause (viz. the cloth). (Answer). Not so. The adherence to the inherent cause need be only indirect such as adhering in the inherent cause of its inherent cause.

Notes—The phrase 'non-inherent cause' used to denote असमवायिकारण should not be taken to mean that the cause in question does not inhere in any substratum. It only means that it can never become the inherent cause to the effect in question (न समवायिकारणं असमवायिकारणं); and it does inhere in the inherent cause of the effect directly as in the case of the conjunction of the threads (first example), or indirectly as in the case of the colour of the threads. The definition of non-inherent cause given in the text does not make this clear though it has been explained in the examples. A better and simpler definition is that given in the Tarka Sangraha, "कार्येण कारणेन वा सहैकस्मिन्नर्थे समवेतं सत् कारणमसमवायिकारणम्". This means that the non-inherent cause should, besides serving as a cause, co-inhere in a common base (which is invariably the inherent cause) along with the effect or its inherent cause. Taking the first example, cloth is the effect, its inherent cause is the thread, the conjunction of the threads and the cloth both inhere directly in the threads. In the second example the colour of the cloth is the effect. Its inherent cause is cloth which is the common substratum in this case. The colour of the threads (the cause) does not inhere in the cloth and so its relation to the cloth has to be sought through the threads (its inherent cause). This relation is called स्वसमवायिसमवेतत्व, i.e. inherence through another substance in which it inheres. It is necessary that cause and effect must have a common substratum (समानाधिकरण). The relation which joins the effect to this substratum is called कार्यतावच्छेदकसम्बन्ध and that connecting the cause to it is कारण-

तावच्छेदकसम्बन्धः; [the relation that delimits (i) the effectness and (ii) the causality]. The Naiyāyikas would like to define the two kinds of non-inherent causality including these relationships as follows :—समवायसम्बन्धावच्छिन्नकार्यतानिरूपता या समवाय-स्वसमवायिसमवेतत्वान्यतरावच्छिन्ना कारणता, तदाश्रयत्वमसमवायिकारणत्वम्। The relation linking the कार्यता and the कारणता is known as निरूप्यनिरूपकभाव, i.e. that by which one co-forms or fixes the other inclusively. In the first example the effectness in the cloth (कार्यता) is fixed by the causality (कारणता) in the तन्तु-संयोग through the common relation समवाय. This is then expressed as follows :—समवायसम्बन्धावच्छिन्नपटत्वावच्छिन्नकार्यतानिरूपित-समवायसम्बन्धावच्छिन्नतन्तुसंयोगत्वावच्छिन्नकारणताश्रयः तन्तुसंयोगः। अतः तन्तुसंयोगः पटं प्रत्यसमवायिकारणम्। Similarly the second example can be put in the form समवायसंबन्धावच्छिन्नपटरूपत्वावच्छिन्नकार्यतायाः स्वसमवायि (तन्तु) समवेतत्वसंबन्धावच्छिन्ना या कारणता, सा तन्तुरूपे वर्तत इति भवति तन्तुरूपं पटरूपं प्रत्यसमवायिकारणम्।

The inherent cause also can be expressed in the same terminology as समवायसम्बन्धावच्छिन्नघटत्वावच्छिन्नकार्यतानिरूपिततादात्म्यसम्बन्धावच्छिन्नकपालत्वावच्छिन्नकारणताश्रयं कापालद्वयं; अतस्तद्भवति घटं प्रति समवायिकारणम्। Here the common substratum (the base on which the pot is produced) is the two halves of the pot and the relation linking the two is inherence, being part and whole (अवयवावयविनौ). The halves exist in the substratum by themselves; i.e. the relation is तादात्म्य = self-link, (i.e. they do not require any other relation to delimit their existence).

[Such expanded expressions are quite common in almost all Nyāya works, especially in commentaries, which may appear cumbresome and bewildering in the beginning. But the student who puts in some effort at the outset to understand the Naiyāyika terminology will find himself amply rewarded by the precise and compact nature of such thought-provoking expressions. Though it is not intended to fill these notes with such pedantic expressions, we shall advert to them occasionally to make the student familiar with the Naiyayika phraseology.]

Next the third kind of cause (as per division mentioned in para 9) is being defined and after that the discussion on causality concluded.

[16] (a) निमित्तकारणं तदुच्यते यन्न समवायिकारणं, नाप्यसमवायिकारणं, अथ च कारणम् । यथा वेमादिकं पटस्य ।

(b) तदेतत् भावानामेव त्रिविधं कारणम् । अभावस्य तु निमित्तकारणमात्रम् । तस्य क्वचिदप्यसमवायात् । समवायस्य भावद्वयधर्मत्वात् ।

(c) तदेतस्य त्रिविधस्य मध्ये यदेव कथमपि सातिशयं तदेव करणम् । तेन व्यवस्थितमेतल्लक्षणं प्रमाकरणं प्रमाणमिति ।

Translation—(a) That which is neither an inherent nor a non-inherent cause, but is still a cause is called a cause-in-general or an occasioning cause, just as the loom, shuttle etc. (other similar accessories) are for the cloth.

(b) These three kinds of causes apply only to positive categories. For non-existence, only the occasioning cause is possible as it does not inhere anywhere; and inherence is the link between two positive substances only.

(c) Out of the three kinds of causes (described above) that one which is most efficient (सातिशय) in whatever form in the production of the effect, is called its करण or instrument. Therefore the definition of प्रमाण as the instrument of valid knowledge is well established.

Notes—(a) While there is only one inherent cause and one non-inherent cause for any effect, there are various other accessories and factors neccessary for the production of the final effect, and all these are classed as occasioning causes. All the three kinds of causes are necessary for an effect; for a bundle of threads does not become a cloth though the inherent and non-inherent causes (तन्तु and तन्तुसंयोग) are theoretically existent in the bundle.

(b) The positive categories are six in number as mentioned by Kaṇāda in his V. S. (1-1-2).

1. द्रव्य = substance, 2. गुण = quality, 3. कर्म = action (or activity), 4. सामान्य = generality, 5. विशेष = particularity, 6. समवाय = inherence.

Among those six, it is only the first three that are producible (जन्य). The other three are not producible, but are only

abstract concepts postulated to answer certain logical needs (vide notes under para 11). Out of the three producible things only a substance (द्रव्य) can be the inherent cause of an effect and any of the other two (गुण or कर्म) can be the non-inherent cause. In the case of a stone falling, the stone is the inherent cause and for the first moment of its fall, the weight of the stone (गुरुत्व, a quality) becomes the non-inherent cause; but from the second moment onwards of its fall the acceleration it gains during the just preceding moment (i.e. वेग, a quality) constitutes the non-inherent cause till it comes to rest. Similarly in the case of water flowing, during the first moment of flow the liquidity (or द्रवत्व) of the water is the non-inherent cause and from the second moment onwards, the acceleration or momentum of flow gained during the immediately preceding moment becomes the non-inherent cause.

Since the Naiyāyikas accept the Vaiśeṣika categorisation of all knowables (प्रमेयाणि), it will be useful and necessary to give a very brief description of their categories.

(i) द्रव्य's (substances) are nine in number as follows :—

1. पृथिवी = Earth
2. आपः = Waters
3. तेजस् = Light (including fire)
4. वायु = Wind or air
5. आकाश = Ether
6. काल = Time
7. दिक् = Space
8. आत्मन् = Soul
9. मनस् = Mind

(ii) गुण's (qualities) are classified as twenty-four in number.

1. रूप = Colour
2. रस = Taste
3. गन्ध = Smell
4. स्पर्श = Touch
5. संख्या = Number
6. परिमाण = Size or dimension
7. पृथक्त्व = Separateness
8. संयोग = Conjunction
9. विभाग = Disjunction
10. परत्व = Remoteness
11. अपरत्व = Proximity
12. बुद्धि = Intellect (or cognition)
13. सुख = Pleasure
14. दुःख = Pain
15. इच्छा = Desire
16. द्वेष = Aversion or dislike
17. प्रयत्न = Effort or volition
18. गुरुत्व = Weight or heaviness
19. द्रवत्व = Fluidity
20. स्नेह = Viscidity (or oiliness)
21. संस्कार = Tendency
22. धर्म = Merit
23. अधर्म = Demerit
24. शब्द = Sound.

Only the first seventeen Guṇas were enumeratad by Kaṇāda in his Sūtra (1-1-6); the remaining seven were added by the commentator Prasastapāda. One of the best definitions of Guṇa is that given in B. P. (v. 85) 'अथ द्रव्याश्रिता ज्ञेया निर्गुणा निष्क्रिया गुणाः'–i.e. Guṇas reside in substances and are themselves devoid of attributes and actions.

The modern school of Naiyāyikas does not find sufficient justification to include विभाग, पृथक्त्व, परत्व and अपरत्व as गुण's. Disjunction is only loss of contact or संयोगनाश. The second one is not different from भेद and therefore comes under अभाव. Remoteness and proximity are only notions in time-relations or space-relations and are hardly separate from time and space. The same argument used for excluding विभाग might hold good in the case of दुःख and अधर्म as well. But, on the whole, the Naiyāyikas seem to hold that these apparently negative qualities are not contradictory to the one previous to it; but that they represent positive notions.

It would also be useful to remember the classification of Guṇas into विशेष (special) and सामान्य (general). A special quality is one which resides in one substance only at one time and not in two or more substances. The rest are naturally सामान्य or general qualities. The B. P. enumerates them as follows :–

"बुद्ध्यादिषट्कं स्पर्शान्ताः स्नेहः सांसिद्धिको द्रवः ॥ 90 (b)
अदृष्टभावनाशब्दा अमी वैशेषिका गुणाः ।
संख्यादिरपरत्वान्तो द्रवो नैमित्तिकस्तथा ॥ 91
गुरुत्ववेगौ सामान्यगुणा एते प्रकीर्तिताः" । 92 (a)

The six qualities beginning with intellect, the four ending with touch, viscidity, natural fluidity, merit and demerit (together termed as अदृष्ट), impressions or memory (भावना which is a variety of संस्कार) and sound are classed as विशेषगुण's.

The seven qualities beginning with number and ending with proximity, artificial fluidity, weight and velocity (वेग) are सामान्यगुण's. It should be noted that संस्कार (tendency) includes the three varities, भावना (memory), वेग (velocity) and स्थितिस्थापक (elasticity) and no reason is given as to why they are clubbed together under one word संस्कार. For other classifications of qualities the student may refer to the B. P. and its commentary

the S. M. They are also described in the second part of this book also, when defining substances.

(iii) कर्मन् (motion or activity) is divided into five kinds:-

(1) उत्क्षेपण = upward motion; (2) अपक्षेपण = downward motion; (3) आकुञ्चन = contraction; (4) प्रसारण = expansion and (5) गमन = going or any movement that does not come under the above four. Though this classification is evidently unsatisfactory, it is followed by almost all Naiyāyikas in deference to Kaṇāda's original classification in his Sūtra (1-1-7). The words कर्मन्, क्रिया and कृति are all used as synonyms in common parlance; but in Sāstraic usage, especially among the Naiyāyikas, there are certain differences. कृति is the volitional impulse or effort that invariably precedes any activity; कर्मन् is the general term for any motion and क्रिया denotes the particular activity denoted by the context. This difference between the latter two is no doubt too subtle and is not adhered to rigourously. But it is not difficult to discern the difference in meaning in expressions like "प्रथमं क्रिया ततो विभागः" etc.

For the definition of कर्मन् we shall follow Kaṇāda who says "एकद्रव्यमगुणं संयोगविभागेष्वनपेक्षकारणमिति कर्मलक्षणम्" (1-1-17). This means that action (or motion) inheres only in one substance at a time, is different from Guṇa or quality and is the immediate (i.e. non-inherent) cause of conjunction and disjunction. The last portion (संयोगविभागेष्वनपेक्षकारणम्) is the most important factor and is based on the essential fact that every activity brings about first a disjunction (विभाग), then loss of conjunction with previous spot (पूर्वदेशसंयोगनाश) and thirdly conjunction with another spot (उत्तरदेशसंयोग); each of these three factors occupies one moment (क्षण). Thus with the moment of its origin an activity (क्रिया) is said to last four moments and it comes to an end in the fifth moment. It is interesting to note that the Naiyāyikas use any one of these five factors as a delimiting condition (उपाधि) of a क्षण which is the lowest unit of time conceived by them. [Keśava Miśra also refers to this function of क्रिया (or activity) in the next paragraph in the text].

The other three abstract categories सामान्य. विशेष and समवाय have been explained earlier when dealing with अयुतसिद्ध. These

three together with the ultimate atoms of the first four substances and the other five substances from आकाश or ether, are considered as eternal (नित्य) and hence non-producible (अजन्य) as already explained under para II.

अभाव as a separate category was not mentioned by Kaṇāda along with the other six categories. He however mentions it in his Sūtras quite a number of times as though it is a foregone and undoubted conclusion (e.g. कारणाभावात् कार्याभाव : V.S. 1.1.4). Later commentators (some say it is the great Udayanāchārya but there is no definite proof for it) rightly raised it to the status of a separate पदार्थ or category and since then the number of categories is accepted as seven by both Vaiśeṣikas and Naiyāyikas. The word has been translated into English as negation as well as non-existence, though both the words do not represent the full implication of the Sanskrit word अभाव.

अभाव is of four kinds; प्रागभाव = antecedent non-existence; ध्वंस = consequent non-existence; अत्यन्ताभाव = absolute non-existence; and अन्योन्याभाव or भेद=mutual non-existence or difference. An expression such as "a pot *will be* produced here shortly" predicates the non-existence of the pot before it is produced. This is therefore called प्रागभाव. This is a necessary cause for any effect. It is beginningless, but gets destroyed as soon as the effect is produced. When a pot is *broken or lost*, then also we speak of its non-existence, which is then called ध्वंस. It has thus a beginning from the moment the effect is destroyed, but continues endless afterwards. This is what is meant by saying that a प्रागभाव has no प्रागभाव but has ध्वंस, while ध्वंस has a प्रागभाव but no ध्वंस. It will be noticed that प्रागभाव, कार्य and ध्वंस represent the three stages of time; past, present and future. The past has no beginning, the future has no end, and the present has both beginning and end.

The third variety of अभाव occurs when we say 'the book is not on the table' or 'a cow is not white'. In such cases what is denied is the relation of the book with the table and that of white colour with the cow. This is called अत्यन्ताभाव or absolute non-existence and it is supposed to be eternal. This word has been explained as follows :—"अन्तं=अवधिं अतिक्रान्तोऽभावः, अतएव नित्यः"

The fourth variety is called अन्योन्याभाव or simply भेद which means difference or non-identity. In expressions like 'घटः पटो न', what is denied is the identity (तादात्म्य) of the cloth with the pot and this makes it different from the previous three varieties. In other words when we say 'घटे पटो न' we deny the *relation* of the cloth with the pot; but when we say 'घटः पटो न' we deny the *identity* of the cloth with pot. The former is अत्यन्ताभाव and the latter अन्योन्याभाव; and the distinction is brought out clearly by the use of the locative case in the former, which at once gives the notion of अधिकरण(= substratum). This variety is also considered by the Naiyāyikas as eternal just like अत्यन्ताभाव.

The various factors involved in a negative statement are five in number and should be carefully discriminated. They are : (1) प्रतियोगिन्, counter-correlative i.e., the object the existence of which is denied; (2) प्रतियोगितावच्छेदकधर्म, the delimiting adjunct of the प्रतियोगिन्; (3) अनुयोगिन्, the correlate substratum; (4) अनुयोगितावच्छेदकधर्म, its delimiting adjunct; and (5) प्रतियोगितावच्छेदकसंबन्ध, the relation which delimits the counter-correlativeness of the object with the substratum. In a cognition like ' इह भूतले घटो नास्ति' the existence of a jar on a particular spot is denied. घट is here प्रतियोगिन् and its delimiting adjunct is घटत्व; for, what is denied is not any particular jar, but the whole class of jar which is delimited by 'jarness'. Whenever the existence of an object is considered, one has to conceive it only through a substratum to which it is bound by some relation; and this holds good when its non-existence is also being considered. Here भूतल is the substratum, अनुयोगिन्, and its delimiting adjunct is evidently भूतलत्व. As the jar is conceived as existing on the ground only through its contact with it, its non-existence also is delimited by the same relation, contact or संयोग, which is therefore the प्रतियोगितावच्छेदकसम्बन्ध in the present case. When we say 'अत्र समवायेन घटो नास्ति' this relation is समवाय, and the statement can be true even when there is a jar on the ground. But, if by the word अत्र the component part of the jar (कपाल) is what is meant, then the statement cannot be true, for the jar inheres in the कपाल and this cannot be denied. In the latter case (when कपाल is the अनुयोगिन्) we can say 'अत्र संयोगेन घटो नास्ति' to make it true. The Naiyāyika would thus expand the अभाव in the statement 'इह

भूतले घटो नास्ति' as follows :—संयोगसम्बन्धावच्छिन्नघटत्वावच्छिन्नप्रतियोगितानिरूपितभूतलत्वावच्छिन्नानुयोगिताकोऽभावः, or simply घटप्रतियोगिकभूतलानुयोगिकाभावः—the relation and the two delimiting adjuncts being left out as self evident.

In the case of प्रागभाव and ध्वंस the अनुयोगिन् is invariably the inherent cause (समवायिकारण of the प्रतियोगिन्) and the delimiting relation is therefore समवाय, for it is in the component parts (such as कपाल etc.) that the object (such as घट etc.) is said to be produced or destroyed. In the case of अन्योन्याभाव, e.g. 'घटः पटो न', it is the 'sameness' of the प्रतियोगिन् (पट) that is denied in the अनुयोगिन् (घट) and the delimiting relation is always this 'sameness' or तादात्म्य as it is called in Nyāya phraseology—तस्य आत्मा स्वरूप इव आत्मा यस्य स तदात्मा; तस्य भावः तादात्म्यं. This अभाव is therefore called तादात्म्यसम्बन्धावच्छिन्नाभाव or simply भेद = difference; and the other three varieties are classed together as संसर्गाभाव, where संसर्ग (= relation) means 'relation other than तादात्म्य.' It will be seen that, in the ultimate analysis, it is this 'relation' that forms the basis for denial in all negative statements. This will also illustrate the great importance which Indian logicians (especially of the Navya Nyāya school) attach to संसर्ग (relation) in general.

To avoid endless regression अभावाभाव of an object is, in general, considered equivalent to the original भाव itself; eg. घटाभावाभाव becomes घट itself. But घटाभावभेद may not always be घट. This discussion is too abstruse for a beginner to follow and need not be pursued here.

The concept of अभाव, highly complex as it is, is of considerable moment to the pluralistic view of the universe of the Naiyāyikas. They define मुक्ति (or liberation from all worldly existence), which is the end and aim of all systems of Hindu Philosophy, as आत्यन्तिकदुःखध्वंस, i.e. annihilation of all unhappiness or evils. On the face of it, it leads to the supposition that the Naiyāyikas are pessimists. This is not so. The word दुःख in this context means all voluntary activities leading to birth and death. Complete cessation of all such activities comprises in itself all conceivable forms of happiness (नित्यसुख). By defining मुक्ति through the positive side in some such manner as नित्यनिरतिशयसुखावाप्ति, आनन्दानुभव etc, the emphasis is more on

what one *expects* and not on what one should *do* to attain that stage. This latter emphasis is reflected through the negative form of definition ; for, after all, मुक्ति is the highest goal which everyone should *try to achieve.*

(c) All the above discussion on causes was necessitated by the definition 'प्रमाकरणं प्रमाणं' in para 5. Though करण has been explained as the most efficient cause (vide para 6), we have yet to know how to determine which is the most efficient cause out of the three classes. In trying to explain this the author uses the phrase कथमपि, which still leaves it indefinite, as each one can interpret it in his own way. The commentator Chennu Bhaṭṭa offers the following remarks :—"कथमपीति वदतोऽयमभिप्रायः । प्रमातृप्रमेययोः सतोरपि यदभावात् प्रमानुत्पादकत्वं सोऽतिशयः । यदनन्तरं प्रतिपत्तेर्जन्म वा, असाधारणकारणता वा, प्रमाकरणत्वानुग्राहकत्वं वा, अव्यभिचरितार्थत्वं वेत्यादयः प्रकारास्सूरिभिरुत्प्रेक्षिताः । तत्र केनापि प्रकारेण स्वाभिमतमतिशयं स्वयमेव स्पष्टीकरिष्यत्यविलंबेन प्रमोत्पादकत्वमतिशय इति ।" This, in effect, is only a paraphrase of what the author himself says in a subsequent paragraph (vide para 18).

Naiyāyikas of the older school define करण as 'व्यापारवद्साधारणं कारणं' ; i.e. a specific cause which has an activity (व्यापार) accompanying it in producing the effect. According to this a potter's stick becomes करण as he uses it in producing the rotation of the wheel. By adding the adjective 'व्यापारवत्', they appear to make the definition more cumbersome rather than more specific. For the potter's wheel itself or the inherent cause itself (कपालद्वय) can become the करण. The Navya-Nyāya school define करण as 'फलायोगव्यवच्छिन्नं कारणं', i.e. 'that cause the absence of which will not produce the effect even though all other causes are present.' This will ultimately reduce itself to saying that the असमवायिकारण is itself the करण. For after the two parts of the jar have joined together, the jar is produced and no other cause operates in the formation of a jar. To avoid further confusion, it would appear best to adhere to the definition of Pāṇini 'साधकतमं करणं (अष्टा.1-4-42) which the author himself has adopted earlier (vide p. 6) and to adopt that cause as करण which satisfies best in any individual case.

[17] यत्तु अनधिगतार्थगन्तृ प्रमाणमिति लक्षणं तन्न । एकस्मिन्नेव घटे घटोऽयं घटोयमिति धारावाहिकज्ञानानां गृहीतग्राहिणाम-

प्रामाण्यप्रसङ्गात् । नचान्यान्यक्षणविशिष्टविषयीकरणादनधिगतार्थगन्तृता । प्रत्यक्षेण सूक्ष्मकालभेदानाकलनात् । भेदग्रहे हि क्रियादिसंयोगान्तानां चतुर्णां यौगपद्याभिमानो न स्यात् ।

Translation :-Someone defines प्रमाण as that (instrument) by which a thing not known previously is made known. This is not correct ; because, based on the same jar (perceived already) a succession of cognitions as 'this is a jar' 'this is a jar', each based on the immediately preceding cognition, arises and all these will have to be treated as invalid. Nor will it be correct to say that all these cognitions being momentary, each one has for its object the jar of that particular moment (which does not exist at the succeeding moment) and thus the above definition of knowing what is not known earlier, can be satisfied. Because in sense perception such difference in the minute moments of time is not cognized. If this difference in time be cognizable, then the feeling of simultaneity of the four things beginning with motion and ending with contact (which is experienced by all) will become inexplicable.

Notes– This definition of प्रमाण is that of the Buddhists who believe that everything in this world lasts only for a single moment (क्षणिकविज्ञानवाद). In the case of these successive or serial cognitions, the first cognition does not exist when the second one arises and so the jar presented as object in each cognition does not exist at the moment of second cognition, and thus, they argue, their definition is flawless. The Naiyāyika does not accept this concept of momentariness. He argues that such minute difference in time is not noticed, but what is experienced is a simultaneity in such cases. For example when a lotus flower is pierced by a needle, we feel (and actually say) that all the petals have been pierced simultaneously. Actually there are four moments of time involved in the piercing of even one petal—(1) the motion of piercing the first petal with the needle point; (2) the separation of the point from that petal; (3) the destruction of the contact of the needle point with that; and (4) its contact with the second petal. These four factors are expressed as क्रिया, क्रियातो विभागः, विभागात् पूर्वसंयोगनाशः, ततश्चोत्तरसंयोगोत्पत्तिरिति—This sentence is seen printed along with the text after नस्यात in almost all the edi-

tions; but it appears to have crept into the actual text from the commentary of Chennu Bhaṭṭa. Otherwise the author would not have used the abbreviated form 'क्रियादिसंयोगान्तानाम्' which the commentators explain as above.

Several moments of time elapse before all the lotus petals are pierced; but still the experience is that all have been pierced in a moment. Therefore subtle differences of time in such cases are not cognizable and this holds good in the case of successive cognitions referred to here. So the argument that the jar in the previous cognition occurs as a fresh (or unknown) object in the succeeding cognition does not hold good, as the idea of momentariness itself is contrary to experience.

Now the author concludes his arguments on the definition of प्रमाण.

[18] ननु प्रमायाः कारणानि बहूनि सन्ति, प्रमातृप्रमेयादीनि; तान्यपि किं करणानि उत नेति । उच्यते । सत्यपि प्रमातरि प्रमेये च प्रमानुत्पत्तेः, इन्द्रियसंयोगादौ सत्यविलंबेन प्रमोत्पत्तेः, अत इन्द्रियसंयोगादिरेव करणम् । [प्रमायाः साधकत्वाविशेषेऽपि अनेनैवोत्कर्षेणास्य प्रमात्रादिभ्योऽतिशयितत्वात् अतिशयितं साधकं साधकतमम् । तदेव करणमित्युक्तम् ।]

Translation—There are various causes for valid cognition such as the cognizer, the object cognized etc. Can all these be (called) करण's or not ? This is being answered. Even when the cognizer and the cognized object are there, valid cognition does not arise; but when there is contact of the sense-organ with the object cognition arises without delay. Therefore sense-object-contact alone becomes करण. [Because of this peculiarity it (the sense-object-contact) attains a more specific nature over all other causes such as the cognizer etc; and that (cause) which is more specific than others is करण (as already explained above). Therefore sense-object-contact alone is करण and not the cognizer etc.]

Notes—The author emphasises the specific nature of the sense-object-contact to show that that alone is करण in valid perception. This would imply that he rejects the definition 'व्यापारवदसाधारणं कारणं करणं' (explained in the previous paragraph)

and adopts the modern view. But that he is not definite about it is brought out immediately below when he says that "तस्य ज्ञानस्येन्द्रियं करणं' in the case of निर्विकल्पज्ञान or indeterminate knowledge.

The portion enclosed in brackets [प्रमायाः............मित्युक्तम्] is omitted from the text in many MSS. Chennu Bhaṭṭa does not comment on this portion as it is only a repetition.

[19] तानि प्रमाणानि चत्वारि । तथा च न्यायसूत्रं । "प्रत्यक्षानुमानोपमानशब्दाः प्रमाणानि" इति । (न्या-सू-1-1-3)

Translation—These प्रमाण's are four in number as stated (by Gautama) in the Nyāya Sūtra. (1) प्रत्यक्ष = the instrument of perception; (2) अनुमान = inference; (3) उपमान = comparison; and शब्द = word or verbal testimony.

(3) प्रत्यक्षम्

[20] किं पुनः प्रत्यक्षं ? साक्षात्कारि प्रमाकरणं प्रत्यक्षं । साक्षात्कारिणी च प्रमा सैवोच्यते येन्द्रियजा । सा द्विधा सविकल्पक-निर्विकल्पक-भेदात् । तस्याः करणं त्रिविधं । कदाचिदिन्द्रियं, कदाचिदिन्द्रियार्थसंनिकर्षः, कदाचिज् ज्ञानं ।

Translation—What then is perception ? That instrument which gives rise to *direct* valid cognition is called perception. That alone is called *direct* valid perception which arises through the sense organs. It is of two kinds—(1) सविकल्पक = determinate and (2) निर्विकल्पक = indeterminate. The instrument of perception is of three kinds. In certain cases it is the sense organ itself ; in some cases it is the sense-object-contact; and in certain others it is knowledge itself.

[21] कदा पुनरिन्द्रियं करणम् ? यदा निर्विकल्पकरूपा प्रमा फलं तदेन्द्रियं करणम् । तथाहि । आत्मा मनसा संयुज्यते, मन इन्द्रियेण इन्द्रियमर्थेन, इन्द्रियाणां वस्तुप्राप्यकारित्वात् । ततोऽर्थसन्निकृष्टेनेन्द्रियेण निर्विकल्पकं नामजात्यादियोजनाहीनं किञ्चिदिदमिति ज्ञानं जायते । तस्य ज्ञानस्येन्द्रियं करणं छिदाया इव परशुः । इन्द्रियार्थसन्निकर्षोऽवान्तरव्यापारः छिदाकरणस्य परशोरिव दारुसंयोगः । निर्विकल्पकं ज्ञानं फलं, परशोरिव छिदा ।

Translation—When does the sense-organ become करण ? When an indeterminate knowledge is the result (of perception)

then the sense-organ is the instrument. The various processes involved in perception are as follows :—first the soul prompts the mind; the mind gets into touch with the (particular) sense organ, which in turn goes forward to contact the object, because the senses have the function of contacting the objects. Then through the sense-organ which has contacted the object, indeterminate knowledge arises (at first) which visualises the object alone as 'this is something', without any idea of its name or generality (or any quality making the object definite). The instrument of such a knowledge (निर्विकल्पक) is the sense-organ just as the axe is that of cutting. The sense-object-contact is the mediate activity, just as the axe-wood-contact is that of the instrument of cutting, the axe. Indeterminate knowledge is the result just as the actual severance is by the axe.

[22] कदा पुनरिन्द्रियार्थसन्निकर्षः करणम् ? यदा निर्विकल्पकज्ञानानन्तरं सविकल्पकं नामजात्यादियोजनात्मकं, डित्थोऽयं, ब्राह्मणोऽयं, श्यामोऽयमिति विशेषणविशेष्यावगाहि ज्ञानमुत्पद्यते, तदेन्द्रियार्थसन्निकर्षः करणम् । निर्विकल्पकमेवान्तरव्यापारः । सविकल्पकं ज्ञानं फलम् ।

Translation—When does sense-object-contact become करण ? After (the above-mentioned) indeterminate knowledge has arisen, it is followed by a determinate cognition, which visualises the object observed as something with a definite name as Dittha, as something with a generality or belonging to a particular genus or class as a Brahmin and as something with specific attributes or qualities as black in colour ; i.e. a definite knowledge wherein the attributes or qualities and the qualified (and how they are related) are all clearly brought out as he is Dittha, a Brahmin with dark complexion. In this case (i.e. in determinate cognition) sense-object-contact becomes करण, the indeterminate cognition is the mediate activity and the determinate knowledge itself is the result.

[23] कदा पुनर्ज्ञानं करणम् ? यदोक्तसविकल्पकज्ञानानन्तरं

हानोपादानोपेक्षाबुद्धयो जायन्ते तदा निर्विकल्पकं ज्ञानं करणम् । सविकल्पकज्ञानमवान्तरव्यापारः । हानादिबुद्धयः फलम् ।*

Translation—When does knowledge itself become करण? After the above said determinate knowledge has been gained, there arises the knowledge of discarding or accepting or indifference (of the object perceived). In that case indeterminate knowledge is करण. Determinate knowledge (which follows) is the mediate activity (व्यापार) and the knowledge of discarding or otherwise is the result.

[24] अत्र कश्चिदाह । सविकल्पकादीनामपि इन्द्रियमेव करणम् ? यावन्ति त्वान्तरालिकानि सन्निकर्षादीनि तानि सर्वाण्यवान्तरव्यापार एवेति ।

Translation—Some one says (as follows) :—Even for determinate knowledge and the rest, it is the sense-organ itself that is the instrumental cause. Whatever contacts etc. (of the senses and objects) occur in between, they all form the mediate activity.

Notes—(on paras 19-24). The word प्रत्यक्ष, it should be noted, is used both for perception (प्रत्यक्षप्रमा) and its instrument (करण). [Cf. प्रत्यक्षज्ञानकरणं प्रत्यक्षम् । T. S.] By stating the four instruments the author has left it to the student to infer the four kinds of cognitions (प्रमा's) of which these are instruments. They are :—(1) प्रत्यक्ष = perception, (2) अनुमिति = cognition by inference ; (3) उपमिति = cognition by comparison; and (4) शाब्दज्ञान = cognition by verbal testimony. The divisions and sub-divisions of ज्ञान or बुद्धि followed in other similar elementary Nyāya texts like तर्कसंग्रह, भाषापरिच्छेद, etc. are more lucid and this is given below in the form of a table.

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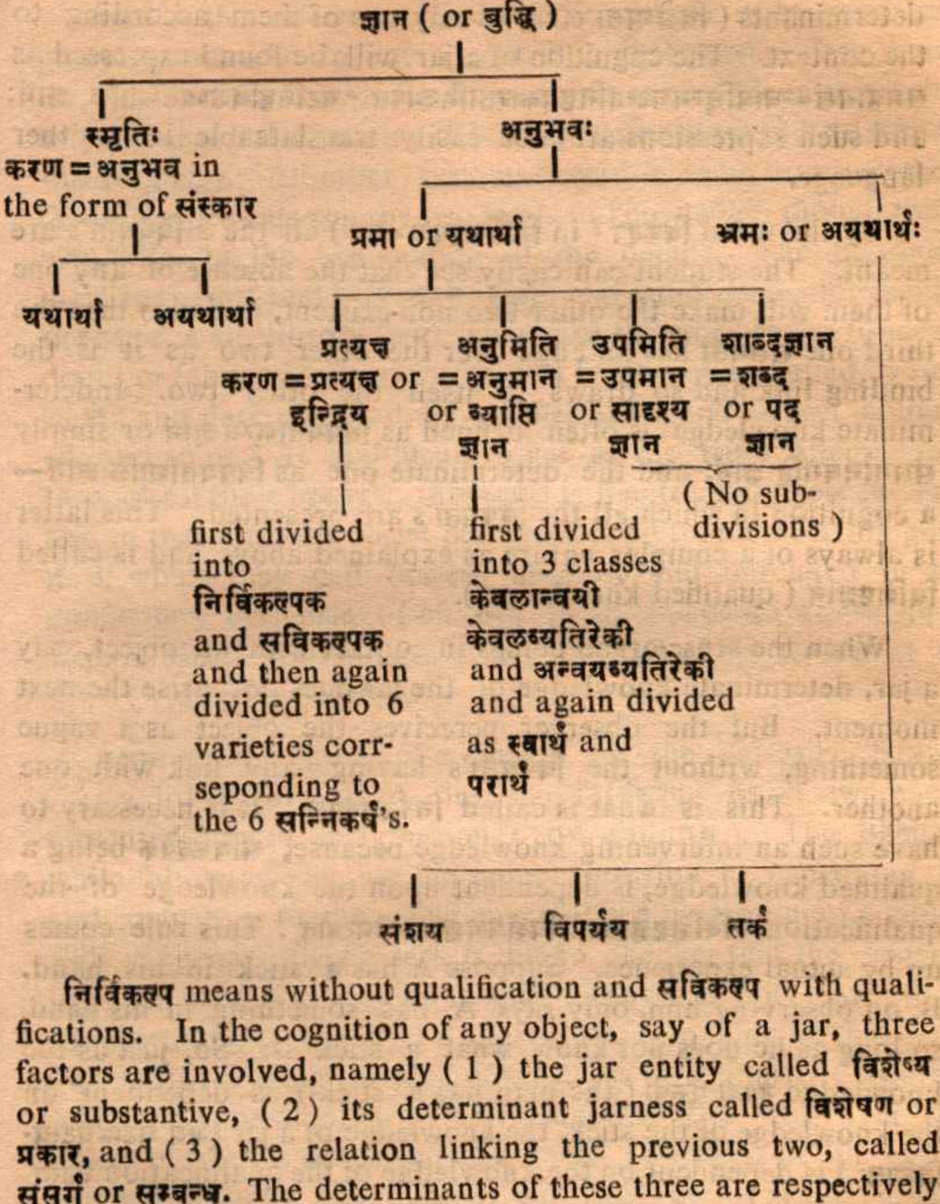
* After फलं some printed texts have another sentence 'तज्जन्यस्तज्जन्यजनकोऽवान्तरव्यापारः, यथा कुठारजन्यः कुठारदारुसंयोगः कुठारजन्यछिदाजनकः :—The inclusion of this is not warranted by the context. Its proper place, if at all it is part of the text, should be under the definition of करण (under para 6 or under para 18).



निर्विकल्प means without qualification and सविकल्प with qualifications. In the cognition of any object, say of a jar, three factors are involved, namely (1) the jar entity called विशेष्य or substantive, (2) its determinant jarness called विशेषण or प्रकार, and (3) the relation linking the previous two, called संसर्ग or सम्बन्ध. The determinants of these three are respectively विशेष्यता, प्रकारता (or विशेषणता) and संसर्गता. These play a very significant part in the phraseology of नव्यन्याय (and also in the other systems of Indian philosophy which follow the Nyāya method of analysis). In the cognition 'this is a jar', jar is the object or विषय and the cognition itself which contains the विषय in termed विषयिन्. Their determinants विषयता and विषयिता also play important roles. The former three factors (विशेष्य etc.) are included under विषय, as they are all presented in the cognition and the determinant विषयता will include all the three

determinants (विशेष्यता etc.) or any one of them according to the context. The cognition of a jar will be found expressed as समवायसंबन्धावच्छिन्नघटत्वनिष्ठप्रकारतानिरूपित - घटनिष्ठविशेष्यताशालि ज्ञानं; and such expressions are not easily translateable in another language.

By the word विकल्प (in निर्विकल्पक etc.) all the 3 विषयता's are meant. The student can easily see that the absense of any one of them will make the other two non-existent, and also that the third one संसर्गता has an edge over the other two as it is the binding link and so draws to itself the other two. Indeterminate knowledge is often defined as विषयताशून्यं ज्ञानं or simply संसर्गानवगाहि ज्ञानं; and the determinate one as विषयताशालि ज्ञानं—a cognition in which all the विषयता's are presented. This latter is always of a complex nature as explained above and is called विशिष्टज्ञान (qualified knowledge).

When the sense-organ comes in contact with an object, say a jar, determinate knowledge of the jar does not arise the next moment. But the observer perceives the object as a vague something, without the विषयता's having any link with one another. This is what is called निर्विकल्पक. It is necessary to have such an intervening knowledge because, सविकल्पक being a qualified knowledge, is dependent upon the knowledge of the qualification—विशिष्टज्ञानस्य विशेषणज्ञानाधीनत्वात् . This rule comes up by actual experience. Suppose A has a stick in his hand. B, on observing him, only says A has something in his hand, so long as he does not know what a stick is. So, just as the knowledge दण्डी पुरुषः (the man has a stick) is dependent on the knowledge of the stick, the knowledge of a jar (अयं घटः=घटत्व-विशिष्टः) is dependent on the knowledge of the qualification घटत्व. This knowledge of घटत्व is supplied by the judgement of the observer through his latent impressions (संस्कार) and the निर्विकल्पक helps him as a catalytic agent. So the Naiyāyikas postulate निर्विकल्पक as a necessary antecedent to the सविकल्पक; the only difference between the two is that the former is not capable of being expressed in words. Cf.

"तस्माद्य एव वस्त्वात्मा सविकल्पस्य गोचरः ।
स एव निर्विकल्पस्य शब्दोल्लेखविवर्जितः ॥"

(न्यायमञ्जरी, p. 92, Benares Ed.)

Among the different Hindu Philosophers it is only the grammarians who do not accept this निर्विकल्पक. They hold the view that no knowledge of an object is possible without the help of the word signifying it. (cf. नहि सोऽस्ति प्रत्ययो लोके यत्र शब्दो न भासते—वा.प.). All other systems accept in some form or other the difference between the two kinds of knowledge, though they may differ in the explanation of the details. The Buddhist logicians assert that निर्विकल्पक is the real valid perception while सविकल्पक is all illusory (भ्रम). They take the word विकल्प to mean doubt or fabrication; e.g. the man in front may be called by one as चैत्र and dark coloured, by another as मैत्र and brown coloured and so on. It is difficult to get at the truth after sifting through all these विकल्प's. निर्विकल्पक is free from all these विकल्प's and in that form the object perceived is presented as a thing-in-itself which they call स्वलक्षण, absolute and unrelated in its momentary existence. (cf. तस्य विषयः स्वलक्षणम् (धर्म-न्या-बि). Keśava Miśra also alludes to it at the end of his treatment of प्रत्यक्ष (vide para 33 below).

प्रशस्तपाद्, the author of a Bhāṣya on the Vaiśeṣika Sūtras, (circa 3rd century AD), describes निर्विकल्पक as an awareness presented only in imagination (आलोचनामात्रम्). The Bhāṭṭas, while following him, use the same expression in explaining it, and compare it to the vague unverbalised perception of a child. This vagueness, they assert, is due to the fact that the generality such as घटत्व presented in the निर्विकल्पक is not understood as pervading all the several individuals belonging to that class (घट), thus missing the idea of sameness or similarity (अनुवृत्ति) when the same observer perceives another jar. Moreover the object in front is conceived as a mere awareness of an entity (व्यक्ति) without any relation with any kind of attribute, with the result that व्यावृत्ति or difference from other classes cannot be had. These two factors अनुवृत्ति and व्यावृत्ति constitute the special feature of सविकल्पक and these are missing in निर्विकल्पक.

While the Bhāṭṭas hold along with the Naiyāyikas that निर्विकल्पक is only to be inferred, the Prābhākaras say that it is presented in itself at the time of sense-object-contact along with the knower and the thing known, as in the case of other cognitions, that the three विषयता's are presented in the निर्वि-

कल्पक also as in सविकल्पक, but that the connections between them are missed and that is why the observer is not able to put it in words. The Viśiṣtādvaitins also adhere to the above view of the Prābhākaras in their explanation of निर्विकल्पक.

The Naiyāyikas refute all these views, but end up by establishing it as a neċessary antecedant to their theory of complex knowledge (विशिष्टज्ञान). The Advaitins, however, carry it forward to show that real निर्विकल्पक is the highest form of realising the *truth* (ब्रह्मन्), the only absolute and permanent reality (सत्ता), untainted by any of the attributes (निर्विषय). This is one of the many instances where the followers of Śaṅkara's Advaita use the device of the Naiyāyikas to explode the pluralistic view of the latter.

The question also arises whether निर्विकल्पक is a valid perception (प्रमा) or only an illusion (भ्रम). As our author just mentions these at the end of the book (under बुद्धि-in part II) a little explanation about भ्रम would not be out of place here. The simplest definitions of these two are तद्वति तत्प्रकारकं ज्ञानं प्रमा and तद्भाववति तत्प्रकारकं ज्ञानं भ्रमः—By the word तत् the प्रकार or attribute (such as घटत्व) is meant and तद्वति means घटत्ववति or घटे; and तद्भाववति means घटत्वाभाववति i.e. घटभिन्ने = पटे etc. If in the cognition of a jar, its own attribute घटत्व is presented as the प्रकार then the cognition is valid; otherwise it is invalid or illusory, as in the case of mistaking a piece of nacre as silver. In निर्विकल्पक the inter-relation of the विषयता's are only *missed* but not mistakenly perceived (as silver is perceived in nacre). So it is neither प्रमा nor भ्रम, as Viśwanātha points out explicitly.

"......न प्रमा नापि भ्रमः स्यान्निर्विकल्पकः ।
प्रकारतादिशून्यं हि संबन्धानवगाहि तत् ॥" (भा. प. 135-136)

The author began his discussion on करण (vide para 6) where he used the words साधकतमम्, अतिशयित, and प्रकृष्ट and now ends up his discussions by laying stress on these same words in para 18. He has scrupulously avoided the definition "व्यापारवद्-साधारणं कारणं करणं" and has made it clear that he does not accept that view when he says "इन्द्रियसंयोगादौ सत्यविलंबेन प्रमोत्पत्तेरत इन्द्रियसंयोगादिरेव करणं" (vide para 18). Here in describing the three करण's of perception, he lays particular stress on

अवान्तरव्यापार in all the 3 cases. (In some editions the definition of व्यापार is also included in the text which is considered spurious in the text followed here, vide footnote on page 38). When the author says there are only two kinds of perceptions and immediately gives 3 करण's for the same, the question arises whether there is a third variety and if so why he has not included it in his statement of division. If, as the author has explained, हानोपादानबुद्धि has निर्विकल्पकज्ञान as its करण, does it find a place under perception at all ? According to the accepted सिद्धान्त, all perception is produced by sense-object-contact and its करण is either the sense-organ itself when you accept a व्यापार in between or the sense-object-contact when व्यापार is not accepted. The author subscribes to the latter view as explained above.

In the case of all cognitions other than perception, knowledge of something (e.g. of व्याप्ति, सादृश्य etc.) becomes करण and it is only in perception that करण is other than knowledge, vide the table of ज्ञान given on p. 39. Actually knowledge whether the object observed is to be rejected, accepted or left alone as neutral comes from the knowledge of utility, which is gained either by inference (अनुमान) or from the advice of elders (आप्तवाक्य=शाब्दज्ञान). So हानोपादानबुद्धि does not come under प्रत्यक्ष. In fact Viśwanātha in his S. M. (under कारिका 51) has defined perception as ज्ञानाऽकरणकं ज्ञानं. Moreover, निर्विकल्पकज्ञान cannot be considered even as an ordinary cause as it is open to the flaw अन्यथासिद्धि (vide notes under para 11), for its antecedence to हानोपादानबुद्धि can be established only after it is known as antecedent to सविकल्पक. These considerations lead one to doubt the correctness of the text here or that there is some inconsistency in the treatment of the subject. Neither Chennu Bhaṭṭa nor Gopīnātha makes any mention of it in their commentaries. It has not been possible to procure any other commentary to verify the position. This conclusion gains additional srtength by what the author says in para 24 as the view of someone, that the sense-organ is करण in all cases of perception, without either supporting or refuting it, though it is evident that he does not agree with it.

[25] इन्द्रियार्थयोस्तु यस्सन्निकर्षः साक्षात्कारिप्रमाहेतुः स षड्विध एव । तद्यथा संयोगः, संयुक्तसमवायः, संयुक्तसमवेतसमवायः, समवायः, समवेतसमवायः, विशेषणविशेष्यभावश्चेति ।

Translation—The relation of the senses with objects, which is the cause of valid direct perceptual cognition is of six kinds only as follows :—(1) contact; (2) inherence with the contacted object; (3) inherence with the inherent in the contacted object; (4) inherence; (5) inherence with the inherent, and (6) the relation of being substantive and adjunct.

These six relations are being explained in order in the next 6 paras.

[26] यदा चक्षुषा घटविषयं ज्ञानं जन्यते तदा चक्षुरिन्द्रियं, घटोऽर्थः, अनयोस्सन्निकर्षः संयोग एव, अयुतसिद्ध्यभावात् । एवं मनसाऽन्तरेणेन्द्रियेण यदात्मविषयं ज्ञानं जन्यते, 'अहमिति', तदा मन इन्द्रियं, आत्माऽर्थः, अनयोस्सन्निकर्षस्संयोग एव ।

Translation--When the cognition of a jar comes through the help of the eyes, then eye is the sense-organ, jar is the object, and the relation between these two is mere contact, as they (the eye and the jar) are not inseparables. Similarly when knowledge of the soul (i.e. one's own self) arises, in the form 'I am', through the internal sense, mind, then this latter (i.e. mind) is the sense organ, soul is the object, and their relation is also mere contact.

Notes—Perceptual experience of all substances (द्रव्याणि) comes through this relation (संयोग). Though soul-mind-contact is a general cause (निमित्तकारण) for all knowledge, mind, which is considered the sixth and internal sense, can also directly bring about perceptual knowledge like the other senses (sight, touch etc.). The author wants to illustrate this point by mentioning that the soul is the object of perception of the mind. Another object of mentioning this specifically is to emphasise that the Naiyāyikas hold quite a different view point from the Prābhākaras and the Advaitins with regard to the perception of the soul. The Prābhākaras hold that soul

(आत्मन्) is itself the abode of the knowledge of 'self-effulgence' (स्वप्रकाशसंविदाश्रयः) and so is self-illuminating i.e. does not need the help of the mind-sense for its perception. The Advaitins, on the other hand, assert that soul is self-effulgent knowledge itself (स्वप्रकाश चिद्रूप) and as such is always self-illuminating and non-disguised (अपरोक्ष) i.e. illumines itself without the intervention of the mind just as a lamp does not require another one to illuminate it. The unflinching devotion of the Naiyāyikas to the pluralistic view of विषय and विषयिन् will not allow them to compromise with the स्वप्रकाश theory.

[27] यदा चक्षुरादिना घटगतरूपादिकं गृह्यते 'घटे श्यामं रूपमस्ती'ति तदा चक्षुरिन्द्रियं, घटरूपमर्थः। अनयोस्सन्निकर्षः संयुक्तसमवाय एव। चक्षुस्संयुक्ते घटे रूपस्य समवायात्। एवं मनसाऽत्मसमवेते सुखादौ गृह्यमाणे अयमेव सन्निकर्षः। घटपरिमाणादिग्रहे चतुष्टयसन्निकर्षोऽपि अधिकं कारणमिष्यते। सत्यपि संयुक्तसमवाये तदभावे दूरे परिमाणाद्यग्रहात्। चतुष्टयसन्निकर्षो यथा, इन्द्रियावयवैरर्थावयवानां, इन्द्रियावयवैरर्थावयविनः, इन्द्रियावयविनाऽर्थावयवानां, इन्द्रियावयविनाऽर्थावयविनः, सन्निकर्ष इति।

Translation—When the colour etc. of a jar is perceived by the eye etc, e.g. 'the jar is black in colour', then eye is the sense-organ; the colour of the jar is the object; and the relation between the two is 'inherence in the object contacted'; for colour (etc.) inheres in the jar with which the eye is in direct contact. Similarly the same relation holds good when pleasure, pain etc. which are inherent in the soul is perceived by the mind (internal sense). When perceiving the dimension etc. of a jar (by the eye etc) then a set of four relations is also postulated as an additional cause; for even when the relation 'inherence in the object contacted' exists, the size (or dimension) etc. of the object at a distance is not grasped in their absence. This set of four relations is as follows :–the relation of the constituent parts of the sense-organ (1) with the constituent parts, and (2) with the whole, of the object and the relation of the whole of the sense-organ, (3) with the constituent parts and (4) with the whole, of the object.

Notes--The postulation of the set of four relations—that of the whole and parts (अवयविन् and अवयव) with the whole and parts of the object observed--is according to the older school of Naiyāyikas; and is not accepted by all as a general rule. The later school hold that proper distance (at which the eye can see clearly) is a cause for such perception, or by saying that undue distance is a hindrance for clear perception and absence of hindrances is a general cause for all effects in general—कार्यमात्रं प्रति प्रतिबन्धकाभावस्य हेतुत्वात्. This will avoid the postulation of four complex relations which will ultimately lead to a doubtful conclusion.

By this relation things inherent in the object observed, such as its qualities (गुण) and actions (कर्म) are perceived.

[28] यदा पुनश्चक्षुषा घटरूपसमवेतं रूपत्वादिसामान्यं गृह्यते, तदा चक्षुरिन्द्रियं; रूपत्वादिसामान्यमर्थः; अनयोस्सन्निकर्षः संयुक्तसमवेतसमवाय एव । यतश्चक्षुस्संयुक्ते घटे रूपं समवेतं, तत्र रूपत्वस्य समवायात् ।

Translation—When the generality 'colourness' (रूपत्व) which is inherent in the colour of the jar is perceived by the eye, then also eye is the sense-organ, the generality रूपत्व etc. is the object and the relation between these two is 'inherence in that which is inherent in the contacted object'. Because रूपत्व is inherent in the colour which is inherent in the jar with which the eye is in contact.

Notes—Similarly, गन्धत्व is cognised by the sense of smell, रसत्व by the sense of taste, स्पर्शत्व by the sense of touch and सुखत्व etc. by mind (internal sense), by this relation.

[29] कदा पुनस्समवायः सन्निकर्षः ? यदा श्रोत्रेन्द्रियेण शब्दो गृह्यते, तदा श्रोत्रमिन्द्रियं, शब्दोऽर्थः, अनयोस्सन्निकर्षः समवाय एव । श्रोत्रस्याकाशात्मकत्वात्, शब्दस्य चाकाशगुणत्वात्, गुणगुणिनोश्च समवायात् ।

Translation—When does inherence become the relation ? When the sense of hearing receives sound then ear is the sense, sound is the object, and their relation is inherence.

Because the auditory sense is ether delimited within the space of the ear, and sound is the (special) quality of ether, and the relation between quality and the qualified is inherence (vide para 11).

[30] यदा पुनश्शब्दसमवेतं शब्दत्वसामान्यं श्रोत्रेन्द्रियेण गृह्यते, तदा श्रोत्रमिन्द्रियं, शब्दत्वसामान्यमर्थः, अनयोस्सन्निकर्षः समवेतसमवाय एव । श्रोत्रसमवेते शब्दे शब्दत्वस्य समवायात् ।

Translation--When soundness (शब्दत्व), the generality inherent in sound, is grasped by the auditory sense, then the ear is the sense, the generality soundness is the object and their relation becomes 'inherence in the inherent', for soundness inheres in sound which itself is inherent in ether represented by the auricular orifice (the ear).

Notes--These two relations (**समवाय** and **समवेतसमवाय**) are formulated for the cognition of sound (by **समवाय**) and its generality (**शब्दत्व**) by the second relation. Sound is the special quality (**गुण**) of ether (**आकाश**). Ether is present everywhere but all sounds are not audible to the ear. Only such sounds that reach the ear are audible and so the ear (or more correctly the ether delimited by the auricular orifice) is also considered as ether.

[31] कदा पुनर्विशेषणविशेष्यभाव इन्द्रियार्थसन्निकर्षो भवति ? यदा चक्षुषा संयुक्ते भूतले घटाद्यभावो गृह्यते, 'इह भूतले घटो नास्ती'ति, तदा चक्षुस्संयुक्तस्य भूतलस्य घटाभावो विशेषणं, भूतलं विशेष्यम् अनयोर्विशेषणविशेष्यभाव एव संबन्धः । यदा पुनर्मनस्संयुक्त आत्मनि सुखाद्यभावो गृह्यते, 'अहं सुखादिरहित' इति तदा मनःसंयुक्तस्यात्मनः सुखाद्यभावो विशेषणम् । यदा च श्रोत्रसमवेते गकारे घत्वाभावो गृह्यते तदा श्रोत्रसमवेतस्य गकारस्य घत्वाभावो विशेषणम् । तदेवं संक्षेपतः पञ्चविधसंबन्धान्यतमसंबद्ध-विशेषण-विशेष्यभावलक्षणेनेन्द्रियार्थसन्निकर्षेणाऽभाव इन्द्रियेण गृह्यते । एवं समवायोऽपि । चक्षुस्संबद्धस्य तन्तोर्विशेष्यभूतः पटसमवायो गृह्यते । 'इहं तन्तुषु पटसमवाय' इति ।

Translation—When does the relation of being substantive and adjunct become sense-object-contact ? When the eye, on

coming into contact with the ground, perceives the non-existence of jar etc. in the form 'there is no jar in this place', then 'non-existence of jar' is the adjunct (or qualification) of the (substratum) ground which is in contact with the eye, the ground is the substantive, and the relation between these two is (what is called) विशेषणविशेष्यभाव. Similarly when mind, in contact with the soul, feels the absence of pleasure etc. in the form 'I am devoid of pleasure etc.', then the 'non-existence of pleasure etc.' forms the adjunct to the (substantive) soul which is in contact with the mind. Likewise, when the absence of the generality घत्व is grasped in the letter-sound ग, which inheres in the ear-sense, then this 'absence of घत्व' becomes the adjunct to the letter-sound ग which inheres in the ear (and which is the substantive here). [In both these cases also विशेषणविशेष्यभाव is the relation]. This is how, in brief, 'non-existence' is perceived by the senses through the sense-object-contact called विशेषणविशेष्यभाव, which in turn is based (and determined) by the five kinds of relations (संयोग etc. explained previously).

Similarly, (the relation) समवाय-inherence-is also perceived by the senses through the relation विशेषणविशेष्यभाव. Inherence (of the threads) in the cloth is grasped as substantive to the (adjunct) threads with which the eye is in contact, in the form 'Inherence with cloth exists in these threads'.

Notes on paras 25-31.—In the above descriptions of the six सन्निकर्ष's (sense-object-contacts), the word सन्निकर्ष is used in a special technical sense. The words 'relation' and 'contact' are generally used for translating it, but actually it connotes a special type of relation which represents the whole range of perceptive reach of the sense-organs. It can easily be seen that the contact (= संयोग) of the jar with the ground is not of the same type as the contact of the eye with the jar. It is this latter type of contact that is meant by the word सन्निकर्ष. (We shall also use this word hereafter with the following abbreviations :—i) सं = संयोग, (2) सं·स. = संयुक्तसमवाय, (3) सं·स-स. = संयुक्तसमवेतसमवाय, (4) सम = समवाय, (5) सम-स = समवेतसमवाय and (6) वि-वि = विशेषणविशेष्यता.

Before explaining the Nyāya–Vaiśeṣika conception of इन्द्रिय or sense-organ the reader may refer back to the notes under para 16 where the subdivisions of द्रव्य and गुण are mentioned. Out of the nine substances mentioned there the first five are collectively termed as 'elements' or भूतानि (earth, water, light, air and ether) and the last five as मूर्तानि (ether, time, space, soul and mind). The first four Bhūtas are each classed under 3 heads viz. शरीर = body, इन्द्रिय = sense-organ, and विषय = object. The earth-body includes that of human beings as well as of all the lower animals. Though the animal body is made up of the five elements (पाञ्चभौतिक), it is called earth-body (पार्थिवशरीर) as earth is the main constituent (i. e. the inherent cause) and the other four are only supporting factors, उपष्टम्भक's. Similarly water, light, and air bodies are also admitted; but these are supposed to exist only in the worlds of वरुण, आदित्य and वायु respectively. This view is based on Purāṇic Cosmology and we may leave it out of consideration. The sense-organs pertaining to these four elements are respectively (1) the sense of smell, घ्राण, (of earth); (2) that of taste, (रसना of water); (3) that of sight चक्षुः, (of light) and (4) that of touch, त्वक्, (of air). The fifth sense—that of hearing—comes under ether (cf. notes under para 29). When we say nose, tongue etc. they should be taken as meaning sense-organs and not as limbs or parts of the body. The latter are the seats or abodes of the senses. Anything other than शरीर and इन्द्रिय is called a विषय; but these two also come under विषय when they are objects of knowledge. But sense organs are not objects of perception (प्रत्यक्ष) but only of inferential or verbal cognition.

The most common definition of इन्द्रिय is शब्देतरोद्भूतविशेषगुणानाश्रये सति ज्ञानकारणमनस्संयोगाश्रयः ; i.e. it is the seat (or abode) of that contact of mind, which produces knowledge, but which is not the seat of any *manifested special* quality except sound. The reader should recall here the Naiyāyika theory of evolution of perception stated by the author in para 21. "आत्मा मनसा संयुज्यते, मन इन्द्रियेण, इन्द्रियमर्थेन, इन्द्रियाणां वस्तुप्राप्यकारित्वात् ।". It is this मनइन्द्रियसंयोग that is meant by मनस्संयोग in the above definition. The division of the 24 qualities into special (विशेष)

and general (सामान्य) has already been mentioned under para 16. Sound is one of the special qualities and if it is not excluded from the adjectival portion, the definition would not cover the sense of hearing. The term उद्भूत has to be explained. All the five senses fall under the elements earth, water etc. as explained above. So they must have the special qualities of these elements; i.e. nose should have smell as it belongs to earth which has smell as its essential special quality ; the eye has colour as it belongs to light, etc. But these senses are not perceptible because the smell, colour etc. inhering in them are not of such a character as to aid perception as the smell of sandal, the colour of the jar etc. These qualities are said to exist in them in a latent unmanifested manner; i.e. अनुद्भूत, and hence imperceptible. Only when they are capable of being perceived by the particular sense-organ concerned they are said to be उद्भूत or manifest. Whenever it is said that smell is perceived by nose, colour by eye, etc. it means manifested smell, manifested colour etc. If this word is not used in the definition, it would not cover the senses. So to avoid this flaw the word उद्भूत is inserted as an adjective to गुण. In this way the definition is made to cover all the senses including mind, which, though a substance as per the Vaiśeṣika classification, is considered as an internal sense (अन्तरिन्द्रिय) in property.

The older exponents of the Nyāya-Vaiśeṣika system hold that all the external senses reach out to their respective objects to produce their cognitions—वस्तु प्राप्य प्रत्यक्षरूपज्ञानकारित्वात् । Their contention is that sense-object-contact is secured whether the object reaches the sense or vice-versa. The modern school holds that it is only in the case of the eye, the sense (in the form of rays) reaches the object to visualise it and so only the visual sense can be called प्राप्यकारिन् and all the other four should be considered अप्राप्यकारिन्. Yet others include the sense of touch also under प्राप्यकारिन्.

It will be noticed that the first three सन्निकर्ष's are intended to cover respectively the perception of (1) the substances; (2) the qualities and actions inherent in those substances perceived under (1); and (3) the attributes that are inherent in the inherent qualities etc. perceived under (2).

The fourth सन्निकर्ष is intended to cover the grasp of sound by the ear and the fifth that of the inherent attributes in sound. We have already referred to the fact that the qualities to be perceived should be in manifest form (उद्भूत). In the case of perception of substances (which happens only through the senses of sight and touch), these should also have (उद्भूतरूप) (manifested colour) and महत्त्व (largeness or proper size) as co-existing determinants in the sense-object-contact causality (कारणतावच्छेदक). It is not enough if these are connected with the substances perceived in some indirect form, as otherwise पृथिवीत्व in a jar and नीलत्व in an earth atom would become perceptible as these are connected in some distant form with the महत्त्व and उद्भूतरूप of the jar. This means that in the perception of substances these two factors should be caused by the relation समवाय, in the perception of qualities and action, by the relation inherence in its substratum (स्वाश्रयसमवाय) and in the case of perception by the third सन्निकर्ष, by the relation of inherence in that which inheres in its substratum (स्वाश्रयसमवेतसमवाय). The older school hold that उद्भूतरूप is a cause for all perception by external senses while the modern school assert that it need be a cause for visual perception only. Similarly आलोकसंयोग (contact with light) should also form a determinant in the case of visual perception as objects in darkness are not visible.

The sixth सन्निकर्ष (वि. वि. भा.)—also called विशेषणता in short-follows from the Naiyāyika dictum :-"येनेन्द्रियेण या व्यक्तिर्गृह्यते तन्निष्ठा जातिस्तदभावश्च तेनैवेन्द्रियेण गृह्यते"; i.e. when an individual entity (substance, quality or action) is perceived by a particular sense-organ, the generic attribute of that entity and its non-existence are also perceived by the same sense-organ. While generic attributes such as घटत्व and जलत्व, नीलत्व and मधुरत्व, शब्दत्व and मन्दत्व etc. are perceived through सन्निकर्ष's 2, 3 and 5, non-existence (as also inherence) is perceived through the last सन्निकर्ष. This relation is a complex one as it is based on one or other of the previous five. When one perceives the non-existence of jar at a particular place, the eye is actually in contact with its substratum, the floor. This relation is therefore संयुक्तविशेषणता-adjunctness to that which is contacted by

the sense-organ. The non-existence of colour in numbers (and so forth) is perceived by संयुक्त समवेतविशेषणता—adjunctness to that inhering in the thing contacted by the sense—, the non-existence of colour etc. in संख्यात्व etc, by the relation संयुक्तसमवेतसमवेत विशेषणता; because संख्यात्व in the adjunct inhering in संख्या which is inherent in the thing perceived and therefore the relation inherence occurs twice; and similarly, other cases of perception of non-existence in other complex cases also are explained by the common and uniform relation of adjunctness (विशेषणता) qualified in such a manner as to connect it to the substratum which is contacted by the sense-organ. All these extensions apply to the perception of inherence (समवाय) as well.

In the case of perception of non–existence, योग्यानुपलब्धि (= effectual non-apprehension) is an important causal factor. When a jar is present in front, the eye does not perceive the non-existence of the jar, because the apprehension of the jar is there. So the non-apprehension (अनुपलब्धि) of the counter-correlative (प्रतियोगिन्) is a necessary cause for perceiving its non-existence. This non-apprehension should have also effectualness (or capacity). This effectualness (योग्यता) is determined by some such ratiocination as "If there be a jar here, it ought to have been perceived by the eye, just as the floor." When contact with light, largeness and all other necessary conditions exist, we can always assume that if there had been a jar it ought to be visible. Here it is the non-existence of the jar that is perceived. But in darkness the above assumption (or ratiocination) cannot be made. (In other words योग्यता is not there.) Hence in darkness there can be no visual perception of the non-existence of the jar. But we can have tactual perception (of the non-existence); for in darkness we can have the above योग्यता as contact with light is not a necessary condition for tactual perception. Qualities like गुरुत्व (weight) are not प्रत्यक्ष (perceptible) because they are not योग्य and so their non-existence is also not perceptible. The non-existence of manifest colour (उद्भूतरूप) in air, of smell in stone, of bitter taste in gur, of coldness in fire, of sound in ear and of pleasure in the soul (and similar अभाव's) are all perceived through the respective

senses, as योग्यता of the counter-correlative in such cases can be had through the above mentioned form of ratiocination. In general the perception of संसर्गाभाव (the first three kinds of non-existence) depends on the effectiveness of the counter-correlative (प्रतियोगियोग्यता) and that of अन्योन्याभाव (or difference) on the effectiveness of the substratum (आधारयोग्यता). The perception of difference from ghosts in a pillar (स्तंभे पिशाचभेदः) is an example in the latter case.

The above six सन्निकर्ष's relate only to what is called normal perception (लौकिकप्रत्यक्ष). The Naiyāyikas recognise three other types of super-normal perceptions (अलौकिकप्रत्यक्ष) which have three kinds of super-normal relation or अलौकिक सन्निकर्ष. They are also called by the word प्रत्यासत्ति which means the same thing as सन्निकर्ष. They are (1) सामान्यलक्षणाप्रत्यासत्ति, (2) ज्ञानलक्षणाप्रत्यासत्ति, and (3) योगजधर्मलक्षणाप्रत्यासत्ति.

(1) सामान्यलक्षणाप्रत्यासत्ति—This relation is based on the knowledge of सामान्य which is used here in the sense of common attribute—समानानां धर्मः. It may mean any common attribute such as धूमत्व which is an eternal generality or it may be any other thing such as a jar that is perceived as a common attribute in all places observed. When one sees smoke in the hearth he gets an idea of धूमत्व also and through that an idea of all smoke as possessed of धूमत्व. Similarly when one has observed a jar at a particular place or as inhering in its component parts (कपाल) it enables him to visualise all such places or कपाल's where the jar may be related by contact or inherence. In all such cases the relation with which the common attribute is observed in the first case should be the same in the substratum in the second case also. Thus at a place from where the jar has been removed, one would not have the knowledge of all places when the jar was related as the समानधर्म is not there at that moment. It is therefore necessary for super-normal perception to have all the conditions necessary for normal perception by the same organ.

(2) ज्ञानलक्षणाप्रत्यासत्ति—This is a relation based on knowledge of something which is always connected with the object of cognition; e.g; as soon as one sees a rose flower he gets the knowledge 'here is a fragrant rose'. Here rose is the object

of visual contact; but fragrance is not a quality capable of being grasped by the eye. All the same fragrance is an adjunct to rose in the knowledge. To account for such perceptions the Naiyāyikas assert that the *knowledge of fragrance* of rose which the observer had experienced previously and which lies latent in his mind (as a संस्कार) steps in as the relation to connect it immediately with the observed rose. Similarly when one mistakes nacre as a piece of silver the knowledge of silverness (रजतत्व) gained elsewhere serves as the relation connecting it with the nacre actually contacted by the eye. At the moment of observation one does not know that the object contacted by the sense-organ is not silver, and that is why this perception is not valid, and is proved to be so after he has taken the object in hand and examined it. If this relation is also based on a form of knowledge, in what way does it differ from the previous one which (as explained above) is based an the knowledge of सामान्य ? Through सामान्यलक्षणाप्रत्यासत्ति one gets the knowledge of the substratum with which the common attribute is connected. Through ज्ञानलक्षणाप्रत्यासत्ति one comes to know the connection of that thing with the thing observed. If this second relation is not admitted the knowledge of fragrancehood (सुरभित्व) as an adjunct to rose and of silverness (रजतत्व) as an adjunct to the object observed cannot be explained properly.

(3) योगजधर्मलक्षणाप्रत्यासत्ति—By practising yoga exercises one gains certain occult virtues or powers by which one is enabled to have knowledge of things past, present and future with or without any external sense-object-contact. This knowledge is considered as a form of internal perception (मानसप्रत्यक्ष) and to account for it the relation based on some powers gained by yoga exercises is admitted by the Naiyāyikas. Since yogins are of two types, युक्त or those who have attained such powers, and युञ्जान or those who are on the road for such attainment, this relation is also of two kinds. Yogins of the first type can have knowledge of all things at all times, while those of the second type need the help of meditations before he gets such knowledge.

The first two kinds of super-normal perceptions, it will be observed, are on the borderland of perception as they really

form a combination of two cognitions, perception and recollection, though without the knowledge of such a combination. The Nyāya school, relying on the after-thought (अनुव्यवसाय) that occurs in the form of 'I have had experience of a fragrant flower', explain such cognitions as perceptions and bring in the recollection part within the causal frame work through these super-normal relations. The Mīmāṁsakas and Advaitins do not admit of such super-normal perceptions in their schemes and explain such cognitions in different ways.

The Nyāya insistence on वि. वि. भा. as a special सन्निकर्ष for the perception of non-existence is also intended to refute the views of certain opponents, especially the Bhāṭṭa Mīmāṁsakas and Advaitins. These two schools postulate another प्रमाण for the cognition of अभाव alone and call it अनुपलब्धि (non-apprehension). The Nyāya realists hold that non-apprehension is a cause for अभावप्रत्यक्ष and argue that it need not be raised to the status of a करण thus formulating a new प्रमाण. The opponents reply that it is easier to explain the cognition of अभाव through a new प्रमाण instead of clubbing it under प्रत्यक्ष and assuming various complex सन्निकर्ष's for its perception. The Naiyāyika comes out with the reply that वि.वि.भा. is not a new relation but only a self linking relation–स्वरूप संबन्ध i.e. विशेषणता and विशेष्यता are only of the form of विशेषण, adjunct, and विशेष्य, substantive, which are nothing new. The arguments on both sides are well balanced and no finality could be reached. योग्यानुपलब्धि (as explained earlier) is a necessary condition for अभावप्रत्यक्ष for all schools who hold अभाव as a separate category. The Prābhākara Mīmmāsakas do not hold अभाव as a separate category, stating that it is only a particular form of its substratum (vide also paras 66–71).

[32] तदेवं षोढा सन्निकर्षो वर्णितः । संग्रहश्च :—

अक्षजा प्रमितिर्द्वेधा सविकल्पाविकल्पिका ।
करणं त्रिविधं तस्याः सन्निकर्षश्च षड्विधः ॥
घट-तन्नील–नीलत्व–शब्द–शब्दत्वजातयः ।
अभावसमवायौ च ग्राह्यास्संबन्धषट्कतः ॥

Translation––In this way the sense-object-contact has been described in six ways. All these are summarised as follows.

The cognition arising out of the senses is of two kinds—determinate and indeterminate. Its instrument is of three kinds and the sense-object-contact is of six types. The various things cognised through these six contacts are respectively. (1) The jar, (2) the blue colour of the jar, (3) the blueness (नीलत्व) in (2), (4) sound, (5) the generality of sound (शब्दत्व) and (6) non-existence and inherence.

[33] ननु निर्विकल्पकं परमार्थतः स्वलक्षणविषयत्वात् भवतु प्रत्यक्षम् । सविकल्पकं तु शब्दलिङ्गवदनुगताकारावगाहित्वात् सामान्यविषयं कथं प्रत्यक्षम् । अक्षजस्यैव प्रत्यक्षत्वात् । अर्थस्य च परमार्थतः सत एव तज्जनकत्वात् । स्वलक्षणं तु परमार्थतः सत्, नंतु सामान्यम् । तस्य प्रमाणनिरस्तविधिभावस्य अन्यव्यावृत्यात्मनस्तुच्छत्वात् । मैवम् । सामान्यस्यापि वस्तुभूतत्वात् ।

तदेवं व्याख्यातं प्रत्यक्षम् ।

Translation—[The Buddhist idealist objects]. Indeterminate cognition which has for its object the real स्वलक्षण—the *thing-in-itself* untainted by any of the विषयता's—may be considered as perception. But how can determinate cognition be perception as it has generality as its object and conveys the comprehensive generic idea just like words and inferential *probans* (लिङ्ग)? Only that cognition directly arising from a real object can be perception and only an object which really exists (परमार्थसत्) can produce such perception. Only स्वलक्षण (as admitted by us) is the real thing that exists (in a positive form); and not generality which is insignificant (being an अभाव) in as much as its positive character has been refuted by all proofs.

Ans.—This is not so; for generality also is a real existing entity (and not insignificant as you have surmised).

Notes—A reference has been made earlier to the Buddhist view of निर्विकल्प and the notes under para 24 may be recalled here. The Buddhists do not admit सामान्य or जाति (generality) as a separate category. They explain the functions of सामान्य through a newly formulated धर्म (characteristic) called अपोह. This is explained as अतद्व्यावृत्ति or तद्भिन्नभिन्नत्व–difference from

what it is not. Their arguments for not recognising it as a positive entity proceed on the following lines. "Before the jar was produced, jarhood (घटत्व) was not present in any of its causes. After the jar is produced where does it come from? It cannot all of a sudden rise out of nothing. When the jar is destroyed घटत्व is not destroyed as it is eternal. So where does it go as it is not visible? Because such things cannot be explained properly सामान्य cannot be admitted as a real positive entity. The similarity of cognition in a number of jars as 'this is a jar, this is a jar' (अनुवृत्तिप्रत्यय) is explained by you by postulating घटत्व as a common generic feature. We say that a jar as soon as it is produced acquires the characteristic of differentiating itself from all non-jar things. Because this characteristic persists in all jars we get the similarity of cognition; and so on."

The Hindu Naiyāyikas (as explained under para 24) consider सविकल्पक as a complex cognition embodying all the विषयता's. The Buddhists think that sense organs can contact only positive real entities and not unreal things like सामान्य (which according to them reduces to a अभाव). They therefore do not treat सविकल्पक as a sense perception. The author here dismisses the objection by the single sentence that सामान्य is a real positive entity--meaning thereby that it is not a अभाव, that the sense-organ can have contact with it through the substratum and so determinate cognition comes under sense perception. This is only a statement of one's own view and not a refutation of the opponent's. It can be seen from the brief reference to the Buddhist theory (above) that its refutation as such means striking at the roots of fundamental concepts on both sides--an attempt neither possible nor necessary in a primer like the present one.

Thus perception has been explained.

(4) अनुमानम्

INFERENCE

[34] लिङ्गपरामर्शोऽनुमानम् । येन ह्यनुमीयते तदनुमानम् । लिङ्गपरामर्शेनानुमीयते । अतो लिङ्गपरामर्शोऽनुमानम् । तच्च धूमादिज्ञानम् । अनुमितिं प्रति करणत्वात् । अग्न्यादिज्ञानमनुमितिः । तत्करणं धूमादिज्ञानम् ।

[35] किं पुनर्लिङ्गं, कश्च तस्य परामर्शः ? उच्यते । व्याप्तिबलेनार्थगमकं लिङ्गम् । यथा धूमोऽग्नेर्लिङ्गम् । तथाहि । यत्र धूमस्तत्राग्निरिति साहचर्यनियमो व्याप्तिः । तस्यां गृहीतायामेव धूमोऽग्निं गमयति । अतो व्याप्तिबलेनाग्न्यनुमापकत्वात् धूमोऽग्नेर्लिङ्गम् । तस्य तृतीयं ज्ञानं लिङ्गपरामर्शः । तथाहि । प्रथमं तावन्महानसादौ भूयो भूयो धूमं पश्यन् वह्निं पश्यति । तेन भूयोदर्शनेन धूमाग्न्योः स्वाभाविकं सम्बन्धमवधारयति, यत्र धूमस्तत्राग्निरिति ।

Translatian 34—Subsumptive reflection (परामर्श) of the reason (लिङ्ग) is (called) inference. The derivative meaning of अनुमान is that through which something is inferred. It is (only) through subsumptive reflection that something is inferred. Therefore such a reflection becomes inference; and that is the knowledge of (the presence of) smoke etc. in the subject; because that is the instrument for inferential cognition. (अनुमिति). Such a cognition is the knowledge of (the presence of) fire etc. in the subject and its instrument is the knowledge of the presence of smoke etc.

35—What is लिङ्ग and its परामर्श are being explained. Reason (लिङ्ग) is that which causes a thing to be known by the strength of invariable concomitance (व्याप्ति); e.g. smoke is the reason for (inferring) fire. It is in this manner. The invariable co-existence in the form 'where there is smoke there is fire' is (what is called) व्याप्ति. When that is grasped smoke makes known (the presence of) fire. Because it causes the inference of fire through the strength of व्याप्ति, smoke becomes लिङ्ग for (inferring) fire. The third knowledge of this लिङ्ग is what is called लिङ्गपरामर्श. For instance, in the kitchen etc. one sees repeatedly smoke in association with fire and through

these repeated perceptions he makes out a natural relation (between the two) in the form 'where there is smoke there exists fire'.

Notes –The word अनुमान means अनु = after and मान = proof or knowledge; i.e. it is a mental judgement which arises *after* some thing has been heard or observed through certain steps of reasoning based on the observed (or heard) things. The author in his anxiety to establish the करणत्व or instrumentality gives the grammatical derivation of the word (अनुमीयते अनेनेति) at the very outset. Vātsyāyana's remark (while commenting on N. S. 1. 1. 3) is more to the point "मितेन लिंगेनार्थस्य पश्चान्मानं"—the subsequent judgement or apprehension of a thing from the reason previously known. That is also one of the main reasons why Nyāya writers prefer to treat अनुमान just after प्रत्यक्ष as the former is greatly dependent (उपजीवक) on the latter which thus becomes उपजीव्य; and the propriety of treating inference after perception is explained by the relation उपजीव्योपजीवकभाव.

Before going further, it would be desirable to have a general notion of the technical terms involved herein. The author no doubt gives their technical definitions as he proceeds further and we shall also refer to them in detail at the appropriate places. अनुमिति (प्रमा) is the inferential cognition of the form 'The mountain has fire', which arises after going through certain reasoning processes. The mountain in which fire is inferred is called पक्ष or subject. Fire which is the thing inferred, is called साध्य or *probandum.* Smoke which was observed as coming from the mountain, causes the inference to be drawn through a knowledge of its invariable concomitance with fire and so becomes लिङ्ग or हेतु or साधन or *probans* (reason). The invariable concomitance between the साध्य and साधन is called व्याप्ति, and with reference to व्याप्ति, साध्य becomes व्यापक (=pervasive or of greater extent) and साधन becomes व्याप्य (pervaded or of less extent). Expressions like 'वह्निव्याप्यो धूमः' and धूमव्यापको वह्निः are quite common. By keeping to the general form of व्याप्ति, 'यत्र धूमस्तत्राग्निः' it should not be difficult to keep the व्याप्य and व्यापक distinctively. These three terms पक्ष, साध्य and हेतु correspond to the minor, major and middle

terms of the Aristotlean system. While the latter lays greater emphasis on the middle term, the Nyāya अनुमान depends on the relation between हेतु and साध्य technically called व्याप्ति.

The words लिंग, हेतु and साधन are all used as synonyms. But the first one लिङ्ग which actually means 'mark' or 'sign' is used in a technical sense in अनुमान section of Nyāya works. Smoke by itself as seen trailing in the sky without knowing the source of origin or its substratum, will not be a cause for inferring fire. Even if the source is known, if its co-existence with fire is not recollected, then also there is no inference. So the हेतु, smoke, must have two distinct qualifications, to enable it to cause the inference of fire—(1) it must be qualified by व्याप्ति (i. e. व्याप्तिविशिष्ट) and (2) it must be observed to exist in a subject (पक्ष) i.e. it must be an adjunct of the पक्ष (पक्षधर्म)—in other words it must have पक्षधर्मता—the quality of being a पक्षधर्म. When the हेतु is known to be व्याप्तिविशिष्ट then it is technically called लिङ्ग and this is what the author means by saying व्याप्तिबलेनार्थगमकं लिङ्गं. Some commentators explain the word as लीनमर्थं गमयतीति लिङ्गं—लिङ्ग is that which makes us ascertain the latent thing which may be the व्याप्ति itself or *through it* (i.e. by the force of व्याप्ति—व्याप्तिबलेन) the fire or साध्य.

Now the knowledge of the two qualifications of हेतु may remain as separate notions without any relation between them e.g. धूमो व्याप्तिविशिष्टः and धूमः पर्वतवृत्ती. Even then it does not cause inference—unless these two merge together to form a third complex knowledge as व्याप्तिविशिष्टधूमः पर्वतवृत्ती, inference does not take place. This is expressed in the text as 'तस्य तृतीयज्ञानं लिङ्गपरामर्शः'. This complex knowledge is called variously as परामर्श, लिङ्गपरामर्श or तृतीयलिङ्गपरामर्श. This is the instrument (करण) of inference according to the author as he does not admit of a mediate activity (व्यापार) in between the effect and the ultimate cause. This does not appear to be consistent with what the author has said under perception (vide notes on p. 43). Annambhaṭṭa in his त. सं. says the same thing (तस्माल्लिङ्गपरामर्शोऽनुमानम्); but in his own commentary (त. सं. दी.) he seems to have recollected the inconsistency* and adds as

* An. Bh. says under perception 'तस्मादिन्द्रियं प्रत्यक्षप्रमाणमिति सिद्धम्'

an after-thought— "व्यापारवत्कारणं करणमिति मते परामर्शद्वारा व्याप्तिज्ञानं करणम्". Viśwanātha in his करिकावली has explicitly stated his position as "व्यापारस्तु परामर्शः, करणं व्याप्तिधीर्भवेत् । अनुमायां……" (V. 66). (In inferential cognition, परामर्श is the व्यापार, knowledge of व्याप्ति is the करण and the cognition itself is the फल-result). His definition of परामर्श is also more straight-forward 'व्याप्यस्य पक्षवृत्तित्वधीः परामर्श उच्यते'. The knowledge that the व्याप्य or concomitant exists in the subject (पक्ष) constitutes परामर्श.

व्याप्ति, which we have translated above as 'invariable concomitance', is at once the most important and most disconcerting term in the domain of अनुमान. Keśava Miśra begins with an apparently simple definition 'साहचर्यनियमो व्याप्तिः'. साहचर्य means co-existence which is the same thing as सामानाधिकरण्य. This co-existence should be invariable (नियत) and not adventitious; e.g. wherever the हेतु is, the साध्य should exist in the same place. This is fulfilled in the stock example of smoke and fire, for at *all* places where we have observed smoke such as kitchen, hearth, bonfire etc., we have seen fire also without exception, i.e. the co-existence or concomitance is universal or नियत. We also know that smoke is an effect of fire. So where the effect (smoke) is seen, the cause (fire) must be invariably present. But the inverse is not invariably true, for 'where there is fire there is smoke' may be true in certain cases (as in the kitchen, hearth etc.); but it fails in a redhot iron piece. This shows that fire, besides existing in all places where there is smoke, exists also in places where there is no smoke; i.e. it is of greater extent than smoke. व्याप्ति therefore carries with it, besides co-existence, the idea of greater extent and less extent; i.e. साध्य is व्यापक and साधन is व्याप्य.

The word *extent* (or extensive) is ambiguous and is likely to be mis-understood when bulk or numbers are involved. An area of 10 acres is certainly of greater extent than one of 5 acres, but still a 10 acre-field is not व्यापक to the Naiyāyika. It is just *vice versa*. For here the व्याप्ति is 'wherever there is 10 acre field there is 5 acre field as well' and not the otherway round. Similarly a greater sum (say 1000 Rupees) is not व्यापक to a smaller sum, (say 200 Rupees), for we do *not* have the व्याप्ति 'wherever the sum 200 is, there exists the sum 1000'.

This is why we have mentioned on prepage that the distinction between व्यापक and व्याप्य can be had from the form of व्याप्ति 'यत्र धूमस्तत्र वह्निः' (=यत्र व्याप्यं तत्र व्यापकम्).

The definition of व्याप्ति as साहचर्यनियम or नियतसाहचर्यं is simple and intelligent enough for all practical purposes. It follows the सिद्धान्तव्याप्ति of तत्वचिन्तामणि. When slightly expanded it takes the form "हेतुसमानाधिकरणात्यन्ताभावाप्रतियोगिसाध्यसामानाधिकरण्यं" (vide त. सं. दी.) which is explained by its commentator नीलकण्ठ as follows :—"वह्निमान् धूमादित्यादौ धूमसमानाधिकरणो योऽन्यन्ताभावः, घटाद्यत्यन्ताभावः, तद्प्रतियोगी वह्निः, तत्सामानाधिकरण्यं धूमेऽस्तीति लक्षणसमन्वयः". The expression समानाधिकरणात्यन्ताभावाप्रतियोगि is only a paraphrase of the word नियम (=invariability).

Keśava Miśra after explaining व्याप्ति begins to explain how परामर्श becomes the third step in the process of inference and incidentally mentions another definition of व्याप्ति as स्वाभाविकस्सम्बन्धः, a natural relation. स्वाभाविक means not brought about by adventitious circumstances—अनौपाधिक—and this requires an explanation as to what उपाधि is. This leads him to a digression in the next para. We shall also follow the digression before explaining something more about व्याप्ति.

[36] यद्यपि यत्र यत्र मैत्रीतनयत्वं तत्र तत्र श्यामत्वमिति भूयोदर्शनं समानम्। तथापि मैत्रीतनयत्वश्यामत्वयोर्न स्वाभाविकस्सम्बन्धः। किन्त्वौपाधिक एव। शाकाद्यन्नपरिणामस्योपाधेर्विद्यमानत्वात्। तथाहि। श्यामत्वे मैत्रीतनयत्वं न प्रयोजकम्। किन्तु शाकाद्यन्नपरिणतिभेद एव प्रयोजकः। प्रयोजकश्चोऽपाधिरित्युच्यते। न च धूमाग्न्योस्सम्बन्धे कश्चिदुपाधिरस्ति। अस्ति चेद्योग्यो वाऽयोग्यो वा। अयोग्यस्य शङ्कितुमशक्यत्वात्, योग्यस्यानुपलभ्यमानत्वात्। यत्रोपाधिरस्ति तत्रोपलभ्यते। यथाग्नेर्धूमसम्बन्ध आर्द्रेन्धनसंयोगः। हिंसात्वस्य धर्मसाधनत्वेन सम्बन्धे निषिद्धत्वम्। मैत्रीतनयत्वस्य श्यामत्वेन सम्बन्धे शाकाद्यन्नपरिणतिभेद उपाधिः। न चेह धूमस्याग्निसाहचर्ये कश्चिदुपाधिरस्ति। यद्यभविष्यत् तदाऽद्रक्ष्यत्। दर्शनाभावान्नास्तीति तर्कसहकारिणाऽनुपलम्भसनाथेन प्रत्यक्षेणैवोपाध्यभावोऽवधार्यते। तथा चोपाध्यभावग्रहणजनितसंस्कारसहकृतेन साहचर्यग्राहिणा प्रत्यक्षेणैव धूमाग्न्योर्व्याप्तिरवधार्यते। तेन धूमाग्न्योस्स्वाभाविक एव सम्बन्धः, न त्वौपाधिकः। स्वाभाविकश्च सम्बन्धो व्याप्तिरुच्यते।

Translation—(If as mentioned before repeated observation leads one to know the relation व्याप्ति), the relation 'Whoever is Maitri's child, must be dark' will also be valid and similar to that between smoke and fire, as observing over and over again is common in both cases. (But it is not); for the relation between Maitri's child and dark complexion is not a natural one, but one brought about by an adventitious circumstance, such a circumstance being the effect of Maitri's feeding upon certain kinds of vegetables etc. (In other words) the dark-complexion is brought about *not* by being Maitri's children, but is due to some effect of Maitri feeding on vegetables etc, This causal circumstance (which is purely adventitious or accidental) is what is called उपाधि. There is no such उपाधि in the relation between smoke and fire. If there is one, is it effective or ineffective (in vitiating the relationship) ? If it is ineffective it need not be suspected to exist; and an effective one, if present, should be noticeable. Where there is an उपाधि it is (always) noticed; for instance (1) in the relation of fire with smoke (i.e. in the व्याप्ति, यत्राग्निस्तत्र धूमः) contact with wet fuel; (2) in the relation of slaughter with causing sin, prohibition; and (3) in the relation of being Maitri's child with dark complexion, the effect of vegetable feeding, are (observed as) उपाधि's. Whereas in the co-existence of smoke with fire (यत्र धूमस्तत्राग्निः) no उपाधि in noticed. Had there been one it would have been observed. It is not observed; so there is none. By actual sense-perception aided by the above ratiocination and by the fact of its non-apprehension, the non-existence of उपाधि is determined. Here व्याप्ति between smoke and fire is determined by this sense perception alone which makes us know the co-existence between the two and which is aided by the impression of the knowledge that there is no उपाधि. Therefore the relation between smoke and fire is a natural one and not produced by any उपाधि. Such a *natural* relation (untainted by उपाधि) is what is called व्याप्ति (invariable concomitance).

Notes—In the previous paragraph the author has mentioned that by constant or successive observation (भूयो दर्शनेन) in kitchen, in the hearth, in bonfires etc. one grasps the co-existence of fire and smoke. But mere co-existence is not sufficient for ascertaining the complex relation व्याप्ति, as it

involves the element of invariability as well. This invariability is grasped by a sort of mental ratiocination (तर्क) after co-existence has been ascertained. This amounts to the search for the existence of influences brought about by adventitious circumstances, vitiating the apprehension of co-existence. By observing fire and smoke existing together at several places, if someone were to grasp the व्याप्ति 'where there is fire there is smoke' it does not become invariable. On analysis of the fact that fire is one of the causes of smoke, and by observing only the effect one is naturally led to infer the existence of the cause; but by observing the cause the inference of the effect is not always warranted, as there may be other causes absent which have prevented the effect coming into existence. In the case of a red hot piece of metal there is actually fire but no smoke due to absence of wet fuel which is also an invariable cause for smoke. So wet fuel is an adventitious circumstance which prevents the invariability of the relation 'where there is fire there is smoke'. This is technically called उपाधि. In the case of the व्याप्ति 'where there is smoke there is fire' no such उपाधि is observed and therefore the व्याप्ति is invariable.

This is not the appropriate place for defining and explaining उपाधि and so the author just gives a few examples to show how उपाधि prevents the invariability of व्याप्ति. (The author gives the definition of उपाधि under 'fallacies', and we shall advert to it under that paragraph vide p.)

The presence of उपाधि in any व्याप्ति leads to the detection of the fallacy व्यभिचार (हेतु abiding in a place where the साध्य does not exist), which in its turn prevents the ascertainment of व्याप्ति. So व्याप्ति is also defined as a relation not caused by उपाधि (अनौपाधिकः सम्बन्धः). This is based on the idea of अविनाभाव = non existence of the हेतु without or in the absence of the साध्य. When expanded this definition takes the form साध्यवदन्यावृत्तित्वं. This is called in Nyāya works as पूर्वपक्षव्याप्ति and lays more emphasis on the invariability part than on co-existence as is evident from the double negative involved in it (अन्य and अवृत्ति). Such a व्याप्ति will be found not to cover cases where the non-existence of साध्य or हेतु cannot be conceived in any form as in the case of अभिधेयत्व, प्रमेयत्व etc. More-

over, it will not apply to an inference like 'गुणः सत्तावान् जातिमत्वात्' (= a quality has existence because it has a generality). Here साध्य is सत्ता and it abides in द्रव्य, गुण and कर्म. So साध्यवदन्यs are सामान्य and the other categories and only where the हेतु is known to abide in any of these through the relation delimiting the हेतुता here (i.e. समवाय) its negation (or अवृत्तित्व) can be postulated; for in any negation the knowledge of the counter-correlate (प्रतियोगिन्) is a necessary cause. To avoid these difficulties the definition of व्याप्ति based on साहचर्यनियम (as explained under para 35) was put forward by Gaṅgeśa Upādhyāya. This latter is termed as सिद्धान्तव्याप्ति.

The term भूयोदर्शन is rather ambiguous. It may mean (1) repetition of the same observation over and over again (भूयसां दर्शनानां समाहारः) or (2) observation of several instances of the साध्य and हेतु (भूयसां साध्यसाधनानां दर्शनं) or (3) observation at several places of साध्य and हेतु existing together (भूयस्स्वधिकरणेषु साध्यसाधनयोर्दर्शनं). It is evident that it is in the last sense that the term is used here. Even then such observation by itself does not enable one to conclusively determine the unerring nature of व्याप्ति. For, even after observing in 1000 places the co-existence of smoke and fire if in a single instance smoke is suspected to exist without fire, व्याप्ति cannot be made out. To avoid this it is mentioned that co-existence should be qualified by the knowledge of the absence of व्यभिचार, brought about by ascertaining the non-existence of उपाधि (उपाध्यभावग्रहणजनितसंस्कारसहकृतेन) and this latter part—non-existence of उपाधि—is made out by an inductive sort of ratiocination (तर्क) which takes the form 'if there be no fire then there can be no smoke as well.' This is emphasised by the author in the expression 'दर्शनाभावान्नास्तीति तर्कसहकारिणा'.

Even then how does the observer arrive at the universality of व्याप्ति ? Firstly, it is impossible for any one to observe all instances where smoke and fire co-exist. In many cases व्याप्ति is exemplified as "यत्र यत्र धूमस्तत्र तत्राग्निः" and the repetition यत्रयत्र is intended to emphasise the universality of the relation. The notion of 'everywhere' is quite distinct from that of the totality of particular perceptions however valid they may be. The process of induction as understood in the English system

of logic is not accepted by the Naiyāyikas. J. S. Mill in his system of logic (Peoples Edn. p. 188) defines induction as "that operation of the mind by which we infer that what we know to be true in a particular case or cases will be true in all cases which resemble the former in certain assignable respects." The Nyāya system explains 'that operation of the mind' by their अलौकिक प्रत्यक्ष through सामान्यलक्षणाप्रत्यासत्ति, by which one is enabled to conceive *all* धूम and *all* वह्नि through the delimiting attributes धूमत्व and वह्नित्व which one cognises through the observed particulars (see notes on p. 53 under para 31). This provides the notion of 'everywhere' and enables one to grasp व्याप्ति in its universal form as '*wherever* there is smoke there is fire.' In the English system induction is a process of *inference* from known particulars to the unknown general; while सामान्यलक्षणाप्रत्यासत्ति is the process of cognising the class notion from the perception of the individual through the law of association. Because this cognition follows the visual perception of the individual and because there is no व्याप्ति or परामर्श in between, it is included under प्रत्यक्ष. As there is no direct इन्द्रियार्थसन्निकर्ष, it is classed as अलौकिक—supernormal—as already explained. To emphasise this our author has rightly pointed out प्रत्यक्षेणैव at both the places in the last portion of the above para—for cognising the absence of उपाधि as well as for ascertaining व्याप्ति.

[37] तदनेन न्यायेन धूमाग्न्योर्व्याप्तौ गृह्यमाणायां महानसे यद्धूमज्ञानं तत्प्रथमम् । पर्वतादौ पक्षे यद्धूमज्ञानं तत् द्वितीयम् । ततः पूर्वगृहीतां व्याप्तिं स्मृत्वा तत्र पर्वते पुनर्धूमं परामृशति 'अस्त्यत्र पर्वतेऽग्निना व्याप्तो धूम' इति तदिदं धूमज्ञानं तृतीयम् । तच्चावश्यमभ्युपेतव्यम् । अन्यथा यत्र धूमस्तत्राग्निरित्येव स्यात् । इह तु कथमग्निना भवितव्यम् । तस्मादिहापि धूमोऽस्तीति ज्ञानमन्वेषितव्यम् । अयमेव लिंगपरामर्शः । अनुमितिं प्रतिकरणत्वाच्चानुमानम् । तस्मात् "अस्त्यत्र पर्वतेऽग्नि" रित्यनुमितिरुत्पद्यते ।

Translation—The cognition of smoke in the kitchen, while ascertaining the invariable concomitance of smoke with fire in the manner described above, is the first step. The cognition of smoke in the subject, mountain etc, is the second step.

After that (seeing smoke in the mountain) one recollects the invariable concomitance and then subsumes as follows :— "This mountain has smoke which is invariably concomitant with fire", and this cognition is the third step. This third step should neccessarily be accepted. Otherwise our knowledge will end at the cognition 'where there is smoke there is fire'. How can this alone prove the presence of fire (in the mountain) ? Therefore here also it is necessary to accept a cognition of smoke (which is invariably concomitant with fire). This cognition is what is called **लिङ्गपरामर्श**. This being the direct instrument of **अनुमिति** is **अनुमान** or inference. From this, inferential cognition of the form "This mountain has fire" arises.

Notes—All the three cognitions mentioned by the author centre round the **हेतु**, smoke in the present case. The first is actually **व्याप्तिज्ञान** itself by observing smoke and fire together in kitchen etc. Or in other words that smoke is an invariable concomitant of fire (**धूमो वह्निव्याप्यः**). The second is the sight of smoke in the mountain. (**धूमः पर्वतवृत्ती**). This second step immediately makes one recollect the **व्याप्ति** by the law of association. By this recollection, the two previous cognitions (**धूमो वह्निव्याप्यः** and **धूमः पर्वतवृत्ती**) merge together to form a complex cognition as **वह्निव्याप्यधूमः पर्वतवृत्ती** or **वह्निव्याप्यधूमवान् पर्वतः**. This is what is called **परामर्श**. Immediately after this one gets the **अनुमिति** 'The mountain has fire' and so it becomes the **करण** of the latter, which is the same as **अनुमान**. If the third step, **परामर्श** is not accepted, we would end with the recollection of the **व्याप्ति** and that by itself will not be sufficient to produce the cognition that the **व्यापक** or **साध्य** exists in the subject, as is accepted by the Mīmāṁsakas and Vedāntins. To emphasise this point the author argues further in the next two paragraphs, that **व्याप्तिज्ञान** or **पक्षधर्मताज्ञान** by itself is not sufficient to bring about inferential cognition.

[38] ननु प्रथमं महानसे यद्धूमज्ञानं तत्कथं नाग्न्यनुमापकम् ? सत्यम् । व्याप्तेरगृहीतत्वात् । गृहीतायामेव व्याप्तावनुमित्युदयात् । अथ व्याप्तिनिश्चयोत्तरं महानस एवाग्निमनुमीयतां । मैवम् । अग्नेर्दृष्टत्वेन सन्देहा[a]भावात् । सन्दिग्धश्चार्थोऽनुमीयते । यथोक्तं भाष्यकृता ।

(a) A has **सन्देहस्यानुदयात्** ।

"नानुपलब्धे न निर्णीतेऽर्थे न्यायः प्रवर्तते । अपि तु सन्दिग्धेऽर्थे" । (वा-भा-1-1-1)

Translation— Q. Why does not the first cognition of smoke in the kitchen become the cause for inferring fire ? True. But at that time the invariable concomitance between smoke and fire has not been determined; and only after that has been ascertained inferential cognition can arise. In that case, when once the invariable concomitance has been ascertained one can infer fire in the kitchen itself. Not so; because there is no doubt, as fire is actually seen there; and only that thing the existence of which is doubted becomes an object of inference. This has been declared by the author of the भाष्य (on न्या-सू-1-1-1):—"Reasoning (i.e. inference) operates not on the unknown or the definitely known object, but only on the doubted object."

Notes—The question itself is due to the loose wording of the author in saying that, in all the three steps leading to परामर्श, it is the cognition of smoke that serves as cause for inference; and as such this question and answer are not of much import. For all schools of throught व्याप्तिज्ञान is the most important and neccessary cause for inference (vide S. M. quoted in p. 61) and therefore to question why there is no inference when the cause is not there would be wide of the mark. The second part of the objection (why not infer fire in the kitchen itself after ascertaining व्याप्ति) has some meaning. But the answer given is according to the older school of logicians who hold that पक्ष (= subject) is that in which the existence of the साध्य is in doubt (सन्दिग्धसाध्यवान् पक्षः), to which we shall advert in para 57). The modern school of logicians would answer the objection as follows :—"Yes; one can infer fire in the kitchen also if he so *wishes*; but after व्याप्तिज्ञान, he must have परामर्श (वह्निव्याप्यधूमवानयं) and in the next moment he will have the inferential cognition (वह्निमान् महानसः)." In this connection a remark of Gaṅgeśa under पक्षता is interesting. "प्रत्यक्षपरिकलितमप्यर्थमनुमानेन बुभुत्सन्ते तर्करसिकाः" (Lovers of logic would like to establish an object by inference even if they have ascertained it by actual perception.)

[39] अथ पर्वतगतमात्रस्य पुंसो यद्धूमज्ञानं तत्कथं नाग्निमनुमापयति ? अस्ति चात्राऽग्निसन्देहः । साधकबाधकप्रमाणाभावेन संशयस्य न्यायप्राप्तत्वात् । सत्यम् । अगृहीतव्याप्तेरिव गृहीतविस्मृतव्याप्तेरपि पुंसोऽनुमानानुदयेन व्याप्तिस्मृतेरप्यनुमितिहेतुत्वात् । धूमदर्शनाच्च व्याप्तिं स्मरति 'यो यो धूमवान् स सोऽग्निमान् यथा महानस' इति । तेन धूमदर्शने जाते व्याप्तिस्मृतौ भूतायां यद्धूमज्ञानं तत्तृतीयं 'धूमवांश्चाय' मिति । तदेवाग्निमनुमापयति । नान्यत् । तदेव लिङ्गपरामर्शः । तेन व्यवस्थितमेतल्लक्षणं लिङ्गपरामर्शोऽनुमानमिति ।

Translation—Q. When a man, on reaching the mountain, just sees smoke (issuing from it), why does not this knowledge of smoke lead him at once to infer the existence of fire ? At that time doubt about the existence of fire is certainly there; for, in the absence of any evidence for or against the presence of fire, it is legitimate to doubt its existence. A. True; but, just as one who has not ascertained व्याप्ति does not have inferential cognition, similarly one who has ascertained it but has forgotten it, also does not have such cognition; because the recollection of व्याप्ति (at the right time) is also a cause for inferential cognition. On seeing smoke (in the mountain), one usually recollects व्याप्ति (by the law of association) in some such form as 'all those (places) which are smoky are also fiery.' After observing smoke (in the subject) and after recollecting व्याप्ति, a third cognition (connecting the two) such as 'the invariable concomitant smoke exists in the mountain' arises; only this, and not any other cognition, causes the inferential cognition (of fire). This cognition is अनुमान (= inference, the करण for अनुमिति) and is identical with लिङ्गपरामर्श. Therefore the definition that अनुमान *is* लिङ्गपरामर्श is well established.

Notes—The author's intention in the above two paras is to emphasise that परामर्श as a third step is essential for bringing about inferential cognition, as opposed to the view of the Mīmāṁsakās and other schools who hold that अनुमिति arises directly from व्याप्तिज्ञान. The Bhāṭṭas hold that व्याप्तिज्ञान is a synthetic cognition with reference to certain observed particulars and is quite sufficient to lead one to infer the साध्य in a subject where the हेतु is observed to exist, provided there is no

suspicion of व्यभिचारज्ञान. While the Bhāṭṭas do not deny the existence or occurrence of परामर्श, they hold that it does not become a cause, much less a करण, for अनुमिति; and whereever such a complex cognition as परामर्श occurs, that itself is a case of inference. The Prābhākaras differ from the Bhāṭṭas in their general outlook towards व्याप्ति which (to them) is free from all limitations of space and time and thus assumes the form of a universal generalisation as in the Naiyāyika system. But unlike the Naiyāyikas, they too do not accept परामर्श in between व्याप्ति and अनुमिति. The Vedāntins follow the Bhāṭṭas in the treatment of the प्रमाणs in general including inference. It is not considered necessary here to encumber the beginner with all the subtle arguments for and against the acceptance of परामर्श. Of all the Indian schools of philosophy it is only the Naiyāyikās who insist on its acceptance, and we shall advert to it again under members of syllogism (vide para 41).

[40] तच्चानुमानं द्विविधम् । स्वार्थं परार्थं चेति । स्वार्थं स्वप्रतिपत्तिहेतुः । तथाहि । स्वयमेव महानसादौ विशिष्टेन प्रत्यक्षेण धूमाग्न्योर्व्याप्तिं गृहीत्वा पर्वतसमीपं गतः, तद्गते चाग्नौ सन्दिहानः, पर्वतवर्तिनीमविच्छिन्नमूलां अभ्रंलिहां धूमलेखां पश्यन्, धूमदर्शनाच्चोद्बुद्धसंस्कारो व्याप्तिं स्मरति 'यत्र धूमस्तत्राग्नि' रिति । ततोऽत्रापि धूमोऽस्तीति प्रतिपद्यते । तस्मादत्राप्यग्निरास्तीति स्वयमेव प्रतिपद्यते । तत्स्वार्थानुमानम् ।

Translation—Inference is of two kinds; स्वार्थ = for one's own self and परार्थ = for the sake of another. The former is that (process) by which one gets convinced in his own mind. For example, after ascertaining व्याप्ति between smoke and fire in the kitchen etc. by the special perception (as mentioned above), if one happens to go near a mountain and sees an unbroken line of smoke, issuing from the mountain and reaching to the skies, he doubts the existence of fire there and (immediately) recollects the व्याप्ति, 'where there is smoke there is fire', through the impression that gets aroused by the sight of smoke. Then he makes sure that such a (concomitant) smoke exists in the subject (पक्ष) before him and thereby

concludes (in his mind) that there is fire here also (i.e. in the mountain). This is called स्वार्थानुमान.

Notes—The division of inference into स्वार्थ and परार्थ, though not found in the Sūtras of गौतम and कणाद, was first enunciated by प्रशस्तपाद in his Bhāṣya on the Vaiśeṣika Sūtras of कणाद. By स्वार्थानुमान one clears his own doubts, and after getting himself convinced about the existence of the *probandum* in the subject, as described in the above para, he puts forward certain propositions in a logical order, so that the hearer also may get the same sort of conviction. The inference drawn by the hearer from the propositions so used by the former is called परार्थानुमान, which is being explained in the next para.

[41] यत्तु कश्चित् स्वयं धूमादग्निमनुमाय परं बोधयितुं पञ्चावयवमनुमानवाक्यं प्रयुङ्क्ते तत्परार्थानुमानम्। तद्यथा। पर्वतोऽग्निमान्। धूमवत्वात्। यो यो धूमवान् स सोऽग्निमान् यथा महानसः। तथा चायम्। तस्मात्तथा इति। अनेन वाक्येन प्रतिज्ञादिमता प्रतिपादितात् पञ्चरूपोपपन्नाल्लिङ्गात् परोऽप्यग्निं प्रतिपद्यते। तेनैतत् परार्थानुमानम्।

Translation—When someone, after inferring for himself fire from smoke (as explained above), puts forth a five-membered syllogism to carry conviction to another, that inference (i.e. the one that occurs in the hearer's mind) is called परार्थ (inference for another). The five members are :—

(1) The mountain has fire;
(2) Because it emits smoke;
(3) All that emits smoke, contains fire, as the kitchen;
(4) This mountain is like that (i.e. emits smoke concomitant with fire).
(5) Therefore it contains fire.

By means of this syllogism which contains the five members प्रतिज्ञा etc., the लिङ्ग or *probans* happens to be represented as possessing all the five requisite qualifications (पञ्चरूपोपपन्न); and through this (i.e. the लिङ्ग) the hearer also gets convinced of the presence of fire (in the mountain). Therefore this is called परार्थानुमान or inference for the sake of another.

Notes—The five members of syllogism are :

1) प्रतिज्ञा = The statement of the proposition to be inferred or proved, as पर्वतो वह्निमान्.

2) हेतु = The statement of the *probans* by means of which the साध्य is inferred, as धूमवत्वात् or धूमात्. The difference between these two forms is that when we say धूमवत्वात्, the fact that the smoke exists in the subject is brought out more forcibly than by saying धूमात्. In other words, धूमात् means 'because of smoke' while धूमवत्वात् means 'because of the existence of smoke in it'. Naiyāyikas prefer to use this latter form when they want to state a reason.

3) उदाहरण = The statement of the व्याप्ति between the साध्य in the first member and the हेतु in the second, followed by an example (other than the subject) where the co-existence has been observed as यो यो धूमवान् स सोऽग्निमान् यथा महानसः. व्याप्ति is stated in two forms of which the first is that used in the text, in which the हेतु and साध्य are stated as qualifications of the common substratum. The other from is यत्र यत्र धूमस्तत्र तत्राऽग्निः in which the subject is referred to in the locative gender and the हेतु and साध्य are predicated as existing in it. The duplication of the relative and the correlative in both forms is only to emphasise the universality of the व्याप्ति. The former method of stating the व्याप्ति conforms more with the form of the other members of the syllogism where the emphasis is more on the subject or पक्ष; while the latter form would present the व्याप्ति more naturally and so is preferred to

express व्याप्ति alone but not as a member of the syllogism. If the latter form is used the example following it will also have to be put in the locative (यथा महानसे). Even then it would not join up naturally with the next statement तथा चायम्.

4) उपनय = Statement of the परामर्श i.e. combination of the व्याप्तिज्ञान and पक्षधर्मताज्ञान (as explained earlier) as तथा चायम्. The word तथा stands for साध्यव्याप्यहेतुमान् and अयं for the subject in question.

5) निगमन = The conclusion as तस्मात्तथा; the word तथा standing for साध्यवान्. The subject अयं is supplied from the previous sentence.

The first member prepares the hearer as to what exactly he is expected to infer. Only when his curiosity is aroused, it is natural for him to ask "How or on what grounds do you say that ?" So the reason is stated in the second sentence. Not satisfied by hearing the naming of the reason, he further enquires how this particular reason proves the existence of the साध्य. So the third member states the concomitant relation between the हेतु and साध्य as also a particular instance where the hearer might have actually observed the concomitance. As soon as व्याप्ति is realised the hearer is asked to combine the two cognitions gained by the second and third members into a complex one such as साध्यव्याप्यहेतुमान् पक्ष :- When this परामर्श arises and when there is no impediment, the inferential cognition arises and to show that the हेतु proves the proposition conclusively without being vitiated by any counteracting influence or by any stultifying evidence, the proposition is again stated *as proved* (cf. Q. E. D. under Euclid's theorems the demonstration of which has some resemblance to this five-membered syllogism.) These are called अवयवs as they form parts or limbs of the body of परार्थानुमान. The syllogism is also termed न्याय or न्यायप्रयोग and परार्थानुमान as न्यायप्रयोज्य or न्यायसाध्य.

The Mīmāṁsakas and Vedāntins hold that all these five members are not necessary, but that either No. 1, 2 and 3 or

Nos. 3, 4 and 5 would be sufficient for परार्थानुमान. The Buddhists go a step further saying that only two members, Nos. 3 and 4, would be sufficient for the hearer to form an inference. The Naiyāyika stand is that in these cases of truncated or incomplete syllogisms the hearer's mind would not pass through a methodical system of reasoning, that he would be put to a lot of mental searching for the missing links, that it is because of the quickness of the mental activity that this searching is not taken into account, and that therefore it is better to state all the steps in the form they advocate to avoid all doubts or stultifying influences. There is no end to the arguments on both sides and the difference, which is mainly based on the fact that these schools do not accept परामर्श as a cause of अनुमान, will ultimately reduce itself to one of form rather than of substance. In this connection the following quotation from वेदान्तपरिभाषा is significant "न्यायो नामावयवसमुदायः। अवयवाश्च त्रय एव; प्रतिज्ञाहेतूदाहरणरूपाः, उदाहरणोपनयनिगमनरूपा वा। न तु पञ्च। अवयवत्रयेणैव व्याप्तिपक्षधर्मतयोरुपदर्शनसम्भवेन अधिकावयवद्वयस्य व्यर्थत्वात्।"

Here we may compare the Nyāya syllogism with that of Aristotle. It must be remembered that the Nyāya system does not recognise anything corresponding to the syllogistic figures and moods accepted by Aristotle. A typical Nyāya syllogism can be compared in some manner to the *Barbara* type of the first figure of Aristotle which consists of three members as follows :—

1. All men are mortal—(called the major premise)
2. Socrates is a man —(„ minor „)
3. ∴ Socrates is mortal–(„ conclusion)

The first step expresses the व्याप्ति and therefore corresponds to the उदाहरण (without the specific example) of our author. The second step states the existence of the reason in the subject—i.e. पक्षधर्मता; and corresponds to the 2nd member हेतु. This may also be taken as corresponding to the 4th member उपनय, as it is stated immediately after व्याप्ति, thus representing व्याप्तिविशिष्टपक्षधर्मता or परामर्श. Aristotle, however, does not postulate anywhere such a complex cognition as परामर्श in the process of inference. The last step evidently corresponds to No. 5 of the Nyāya system (निगमन)—(or to the Ist member प्रतिज्ञा).

To satisfy the Naiyāyika fully the above syllogism should be modified a little and rearranged as follows :—

1) चैत्रो मर्त्यः	(प्रतिज्ञा)	= Chaitra is mortal.
2) मनुष्यत्वात्	(हेतु)	= Because he is a man.
3) यो यो मनुष्यः स स मर्त्यः; यथा मैत्रः	(उदाहरण)	= Whoever is a man is mortal; just as Maitra.
4) तथा चायम् (i.e. मर्त्यत्वव्याप्य-मनुष्यत्ववान्	(उपनय)	= Chaitra is like that.
5) तस्मात्तथा (i.e. मर्त्यः)-	(निगमन)	= Therefore Chaitra is mortal.

Similarly the Nyāya syllogism can also be reduced to the Aristotelian form by changing the order of (2) and (3) and by omitting (1) and (4); e.g :—

Nyāya	*Aristotle*
1. चैत्रः श्लाघनीयः ।	1. All who are virtuous are laudable.
2. गुणवत्वात् ।	2. Chaitra is virtuous.
3. यो यो गुणवान् स स श्लाघनीयः, यथा मैत्रः ।	3. Therefore Chaitra is laudable.
4. तथा चायम् ।	
5. तस्मात्तथा ।	

It will be noticed that this form of Aristotle compares well with that accepted by the Vedāntins (cf. quotation above from वे. प. on pre-page).

As regards the other three figures and the other three moods of the first figure of Aristotle, they have all to be reduced to the *Barbara* mood (wherever possible) and then reduced to the Naiyāyika form. It may however be observed that the moods *Darii* aud *Ferioque* of the first figure are not admissible under the Nyāya system as it does not recognise a particular conclusion. Morever, our Nyāya system does not attach any importance to the artificial distinctions of A, E, I and O propositions which play such an important role under the Aristotelian system.

Some may still doubt about the necessity or utility of all the five members of the Nyāya system especially when the same conclusion is arrived at by using only three of the members (or even two as the Buddhist contends). One of the best answers to the above question will be found in the following quotation:- "If syllogistic expression, like any other expression directly or indirectly presupposes a hearer to whom it is addressed, if *Nyāyaprayoga* or syllogistic expression finds a place only in inference for others (परार्थानुमान) and if the process of reasoning in inference for oneself (स्वार्थानुमान) is not syllogising, a strictly logical debate, as recognised by Gautama and his followers, must involve a self-contained syllogistic expression as its main part. The aim of such a self-contained syllogism is to enable the hearer, *first* to specifically think of what has to be demonstrated; *secondly* to learn what the reason is, *thirdly* to understand how the universal and invariable relation which forms the basis of inference is arrived at through observation, *fourthy* how the reason actually relied upon is identical with what is known to be invariably concomitant with the *probandum* and *fifthly* to realize that the *probandum* is conclusively proved by a *probans* which is not vitiated by a *counterprobans* or by a stultifying proof. As already indicated these five requirements can be fully met by the five members of a syllogism, viz. प्रतिज्ञा, हेतु, उदाहरण, उपनय and निगमन. It will be seen from this that the five-membered syllogism of Gautama, far from comprising any superfluous member, is the only complete form of syllogistic expression which could enable a hearer's mind to pass in a methodical way through each of the five stages of demonstrative reasoning, as indicated above." (*A Primer of Indian Logic* by Prof. S. Kuppuswami Sastri— p. 226.).

The five requisite qualifications of a लिङ्ग referred to by the author at the end of para 41 of the text (पञ्चरूपोपपन्नाल्लिङ्गात्) will be further explained by the author under para 48.

Gautama, as already stated above, has not expressly divided inference into स्वार्थ and परार्थ. His division of inference into three types as given in Sūtra 1-1-9 is as follows:—(1) पूर्ववत् i.e. reasoning from cause to effect as in inferring an ensuing

shower from the appearance of dense clouds; (2) शेषवत्, i.e. reasoning from effect to cause as in inferring a past shower by seeing an overflow of the river, and (3) सामान्यतो दृष्ट which comprises all other inferences that follow from reasons other than cause-effect relations. The inference of soul (आत्मन्) as a substratum for बुद्धि (knowledge), इच्छा (desire) etc., may be cited as an example of the third type. Commentators have given various other interpretations for these words पूर्ववत् etc; but these have only added to the already existing vagueness of the Sūtra, with the result that it is not possible to get at the criterion which Gautama had in mind for this division. The नव्यन्याय school beginning from Gaṅgeśa takes no notice of this division and has stuck to the division of inferences into स्वार्थ and परार्थ as given by प्रशस्तपाद in his commentary on the V. S. It was not borrowed from the Buddhist Naiyāyika Diṅnāga as Prof. A. B. Keith would like us to believe (vide his '*Indian Logic and Automism*' p. 106).

This division of अनुमान into स्वार्थ and परार्थ is one of the most vital topics in Indian logic. It clearly enabled the Nyāya system from falling into the restricted scope of formalistic logic (as in the case of Aristotles's system). It shows how the deductive and inductive processes of reasoning merge together to form the complete process of philosophical thinking called अनुमान. It never viewed that *formal validity* is something separated from and independent of *material validity*. Those critics who regard the five-membered syllogism as "in part vestigial, rather than determined by the requirements of logical analysis[1]," would do well to ponder over the subjoined remarks about Indian Logic from the pen of a great western philosopher.

"This error, which appeared very early in our western world has spread during the centuries and yet dominates many minds; so true is this that 'logic' is usually understood to mean 'illogic' or 'formalistic logic'. We say our western world, because if Greece created and passed on the doctrine of logical forms, which was a mixture of thoughts materalised in words and if words become rigid in thoughts, another logic is known which, as it seems, developed outside the influence of Greek

1. Vide Randle's *Indian Logic in its Early Stages* p. 167.

thought and remained immune from the formalistic error. This is Indian logic, which is notably anti-verbalist............Indian logic studies the naturalistic syllogism in itself as internal thought, distinguishing it from the syllogism for others, that is to say, from the more or less usual, but always extrinsic and accidental forms of communication and dispute. It has not even a suspicion of the extravagant idea (which still vitiates our treatises) of a truth which is merely syllogistic and formalistic and which may be false in fact. It takes no account of the judgement, or rather it considers what is called judgement, and what is really the proposition, as a verbal clothing of knowledge; it does not make the verbal distinction of subject, copula and predicate; it does not admit classes of categorical and hypothetical, of affirmative and negative judgements. All these are extraneous to logic whose subject is the constant, "knowledge considered in itself." [*Logic as the Science of Pure Concept* by Benedetto Croce, translated into English by Douglas Ainslie].

[42] अत्र पर्वतेऽग्निमत्वं साध्यं, धूमवत्वं हेतुः। स चान्वयव्यतिरेकी, अन्वयेन व्यतिरेकेण च व्याप्ति[a]मत्वात्। तथाहि। यत्र धूमवत्वं तत्राग्निमत्वं यथा महानस इत्यन्वयव्याप्तिः। महानसे धूमाग्न्योरन्वयसद्भावदर्शनात्। एवं यत्राग्निर्नास्ति तत्र धूमोऽपि नास्ति यथा महाहृद इति व्यतिरेकव्याप्तिः। महाहृदेऽग्निधूमव्यतिरेक[b]स्य सद्भावदर्शनात्।

[43] व्यतिरेकव्याप्तेरयं क्रमः। अन्वयव्याप्तौ यद्व्याप्यं तदभावोऽत्र व्यापकः, यच्च व्यापकं तदभावोऽत्र व्याप्य इति। तदुक्तम्--

"व्याप्यव्यापकभावो हि भावयोर्यादृगिष्यते।
तयोरभावयोस्तस्माद्विपरीतः प्रतीयते॥
अन्वये साधनं व्याप्यं साध्यं व्यापकमिष्यते।
साध्या भावोऽन्यथा व्याप्यो व्यापकस्साधनात्ययः॥
व्याप्यस्य वचनं पूर्वं व्यापकस्य ततः परम्।
एवं स्फुटीकृता व्याप्तिः स्फुटीभवति तत्त्वतः॥

(कु० श्लो० वा० 121-122-123)

(a) व्याप्तेः, व्याप्तेः सत्वात्, इति च पाठान्तरे.
(b) अग्निधूमयोर्व्यतिरेकसद्भावदर्शनात् इति पाठान्तरम्.

Translation—42—Here (in the above mentioned syllogism) the presence of fire in the hill is the *probandum* (साध्य)=that which is to be proved or inferred, and the presence of smoke is the reason or *probans* (हेतु or साधन). This reason (smoke) is of the affirmative-negative kind, in as much as it has invariable concomitance (with fire) both in the affirmative and negative manner. For example, 'where there is smoke there is fire, as in the kitchen' is the affirmative type of व्याप्ति, for in the kitchen the *presence* of smoke and fire are observed directly. Similarly, 'where there is no fire there is no smoke as well, as in a lake' is the negative type of व्याप्ति, for in the lake the *absence* of both fire and smoke are observed.

43—The nature of negative व्याप्ति (i.e. the peculiar characteristic which makes it distinct from the other type) is this; viz.. it is the negative of the prevaded (व्याप्य i.e. the reason) in the affirmative concomitance, that becomes the pervader (व्यापक i.e. the *probandum*) and the negative of the pervader (in the affirmative variety) that becomes the pervaded (in the negative व्याप्ति). This has been stated (by Kumārila in his Śloka-Vārtika) as follows :—

1—The character of being 'pervaded' and of being the 'pervader' existing between two positive things gets subverted when the negations of the same things are considered.

2—In the affirmative व्याप्ति, the *probans* is the 'pervaded' and the *probandum* the pervader. In the negative व्याप्ति, the negation of the *probans* becomes the 'pervader' and the negative of the *probandum* becomes the 'pervaded'.

3—While stating व्याप्ति, the 'pervaded' is stated first and then the 'pervader'. When व्याप्ति is stated expressly in this form then it becomes clear in its true form (i.e. the character of being 'pervaded' and 'pervader'—व्याप्य-व्यापकभाव—becomes easily discernible.)

[44] तदेवं धूमवत्वहेतावन्वयेन व्यतिरेकेण च व्याप्तिरस्ति । यत्तु वाक्ये केवलान्वयव्याप्तिरे[a]व प्रदर्श्यते तदेकेनापि चरितार्थ-

(a) व्याप्तेरेव प्रदर्शनं इति पाठान्तरम्.

त्वात् । तत्राप्यन्वयस्याऽवक्रत्वात् प्रदर्शनम् । ऋजुमार्गेण सिद्ध्यतोऽर्थस्य वक्रेण साधनायोगात् । न तु व्यतिरेकव्याप्तेरभावात् । तदेवं धूमवत्वं हेतुरन्वयव्यतिरेकी । एवमन्येऽप्यनित्यत्वादौ साध्ये कृतकत्वादयो हेतवोऽन्वयव्यतिरेकिणो द्रष्टव्याः ।

[य[(b)]था शब्दोऽनित्यः, कृतकत्वात्; यत्र कृतकत्वं तत्राऽनित्यत्वं यथा घटे; यत्राऽनित्यत्वाभावः तत्र कृतकत्वाभावः यथा गगने ।]

Translation—Thus in the case of the reason, presence of smoke, व्याप्ति exists both in the affirmative and negative manner. But in the example portion of the syllogism (उदाहरण वाक्ये) only the affirmative concomitance has been presented. This is because the statement of one form of व्याप्ति alone will serve the purpose. Even there, the affirmative one has been chosen because it is more direct (or striaght-forward of the two). When a thing can be accomplished by the direct method, it is not proper to resort to the indirect (or complicated) method. Therefore (it is established that) the reason, धूमवत्व, is of the affirmative-negative variety. To the same class (i.e. that which has both kinds of concomitance) belong reasons such as 'created-ness' (कृतकत्व) etc. which are used to establish *probandums* like 'impermanence' (अनित्यत्व) etc. [For example, sound is not permanent (or is non-eternal, *probandum,*) because it is created (*probans*); where there is createdness there is impermanence as in the case of a pot (affirmative concomitance), where there is the absence of impermanence there is the absence of createdness as well, as in the case of ether (आकाश)]

[45] कश्चिद्धेतुः केवलव्यतिरेकी । तद्यथा सात्मकत्वे साध्ये प्राणादिमत्वं हेतुः । यथा जीवच्छरीरं सात्मकम्; प्राणादिमत्वात्; यत्सात्मकं न भवति तत्प्राणादिमन्न भवति यथा घटः, न चेदं जीवच्छरीरं तथा; तस्मान्न तथेति । अत्र हि जीवच्छरीरस्य सात्मकत्वं

(b) This sentence "यथा...गगने" is not found in the other Mss. It is possible that it might have got mixed up with the text from some commentary (cf. Chennu Bhaṭṭa). The B. S. P. S. edition has rightly omitted this sentence from the text.

साध्यम्। प्राणादिमत्वं हेतुः। स च केवलव्यतिरेकी, अन्वयव्याप्तेरभावात्। तथाहि। यत् प्राणादिमत् तत् सात्मकं, यथाऽमुकं इति दृष्टान्तो नास्ति। जीवच्छरीरं सर्वं पक्ष एव।

Translation 45—Some reasons are such as have *only* negative concomitance; e.g; the reason 'presence of breath etc', when put forward to prove the *probandum* 'presence of soul.' The syllogism in this case is as follows :—(1) The living body has a soul; (2) because it breathes; (3) that which has no soul does not breathe, as a pot; (4) This living body is not so (i.e. it is not non-breathing); (5) therefore it is not so (i.e. not without a soul, i.e. it has soul). Here, in the living body (subject), the 'presence of soul' is साध्य (*probandum*) and 'presence of breath etc.' is the reason. This (reason) has only negative concomitance, as there exists no affirmative concomitance. For (if there had been one) it should be of the form 'that which has breath etc. has a soul.' But there is no example 'as in the case of this', as all living bodies have been included in the subject (पक्ष).

[46] लक्षणमपि केवलव्यतिरेकी हेतुः। यथा पृथिवीलक्षणं गन्धवत्वं। विवादपदं पृथिवीति व्यवहर्तव्यं, गन्धवत्वात्, यन्न पृथिवीति व्यवह्रियते तन्न गन्धवत्, यथा आपः। प्रमाणलक्षणं वा। यथा प्रमाकरणत्वम्। तथाहि। प्रत्यक्षादिकं प्रमाणमिति व्यवहर्तव्यं, प्रमाकरणत्वात्। यत् प्रमाणमिति न व्यवह्रियते न तत् प्रमाकरणं, यथा प्रत्यक्षाभासादि। न पुनरत्र यत् प्रमाकरणं तत् प्रमाणमिति व्यवहर्तव्यं, यथाऽमुक इत्यन्वयदृष्टान्तोऽस्ति। प्रमाणमात्रस्य पक्षीकृतत्वात्। अत्र व्यवहारः साध्यः, न तु प्रमाणत्वं। तस्य प्रमाकरणत्वात् हेतोरभेदेन साध्याऽभेददोषप्रसङ्गात्। तदेवं केवलव्यतिरेकिणो दर्शिताः।

Translation 46—All definitions are also instances of reasons having purely negative concomitance, as when we define 'earth' (substance) as that which has smell (as its characteristic). The syllogism would be :—The thing in question (विवादपदं) is to be classified as earth; because it has smell; that which *cannot* be classified as 'earth' does not have smell, e.g., water.

Similar is the definition of प्रमाण as the instrument of valid cognition. The syllogism is as follows :—Perception etc. are to be classified as प्रमाणs; because they are instruments of valid cognition; that which *cannot* be classified as a प्रमाण *cannot* be an instrument of valid cognition, e.g, an invalid sense perception (प्रत्यक्षाभास) etc. If in this case, there be affirmative व्याप्ति in the form 'that which is an instrument of valid cognition is always classified as प्रमाण, no corroborative example could be pointed out (as invalid sense-perception shown above), because all प्रमाणs are included in the subject (पक्ष). In this inference the *probandum* is the fact of 'being classified as प्रमाण' and not that of 'being प्रमाण'; because प्रमाण being synonymous with 'instrument of valid cognition' the *probandum* would be identical with the *probans* which will then lead to the fallacy 'non-difference from the *probandum*' ('साध्याभेद'). Thus have been explained reasons which have purely negative concomitance.

[47] कश्चिदन्यो हेतुः केवलान्वयी । यथा विशे[(a)]षोऽभिधेयः, प्रमेयत्वात्; यत्प्रमेयं तदभिधेयं, यथा घटः; तथा चायं, तस्मात्तथा; इति । अत्र विशेषस्याभिधेयत्वं साध्यं । प्रमेयत्वं हेतुः । स च केवलान्वय्येव । यदभिधेयं न भवति तत्प्रमेयमपि न भवति, यथामुक इति व्यतिरेकदृष्टान्ताभावात् । सर्वत्र हि प्रामाणिक एवार्थो दृष्टान्तः । सच सर्वोऽपि प्रमेयश्चाभिधेयश्चेति ।

Translation 47—Some other reasons are such as have only affirmative concomitance; e.g.; (in the syllogism)

Speciality (विशेष) is namable.
Because it is cognisable.

What is cognisable is also namable, for instance a pot;

This (विशेष) is also such (cognisable),

Therefore it is such (namable).

(a) In this syllogism all the printed texts except B read शब्द as पक्ष instead of विशेष which is the reading accepted by the commentator Chennu Bhaṭṭa.

Here in 'speciality' (पक्ष), namability is the *probandum* and cognisability is the reason which has only affirmative concomitance. The negative concomitance (if there be one) would be of the form 'that which is *not* namable will also be *not* cognisable' but no corroborative example 'like this' could be pointed out (as 'pot' in the previous case), for in all such cases only a well-known thing can be cited as example and all such things are cognisable and namable.

Notes (42–47)—After explaining the Nyāya syllogism the author proceeds to explain the nature of the लिङ्ग (reason). It will be noticed that in the उदाहरणवाक्य of the syllogism the व्याप्ति is stated directly (or affirmatively) as यत्र धूमस्तत्राग्निः, यथा महानसे. This व्याप्ति can be stated in an indirect manner also, i.e. negatively, as यत्र वह्न्यभावस्तत्र धूमाभावः यथा ह्रदे. Those acquainted with Aristotle's system can observe that this negative व्याप्ति is obtained from the affirmative one by obverted conversion as follows : --

Affirmative—All smoky places are fiery.
(यत्र धूमस्तत्राग्निः)

By obversion--No smoky places are non-fiery.
(यत्र धूमो न तत्र वह्न्यभावः)

By conversion--No non-fiery places are smoky.
(यत्र वह्न्यभावः न तत्र धूमः)

By Contraposition--all non-fiery places are non-smoky.
(यत्र वह्न्यभावस्तत्र धूमाभावः)

It will be observed that by introducing two negatives in the अन्वय or affirmative व्याप्ति, the व्याप्य (*probans*) and व्यापक (*probandum*) in it automatically change into the व्यापक and व्याप्य respectively in the व्यतिरेक or negative व्याप्ति. There should not be any difficulty in discerning this if the व्याप्ति is remembered in its simplest form यत्र व्याप्यं तत्र व्यापकं (= अन्वय-व्याप्ति) and यत्र व्यापकाभावस्तत्र व्याप्याभावः (= व्यतिरेकव्याप्ति).

All लिङ्गs however are not capable of taking both the forms of व्याप्ति as in the case of the stock example with धूम as व्याप्य and वह्नि as व्यापक. Some are such as can have only either of the two. When व्याप्ति can be had *only* negatively that लिङ्ग is called केवलव्यतिरेकिन् and when *only* affirmatively that लिङ्ग is

केवलान्वयिन्, those which can have both forms of व्याप्ति are called अन्वयव्यतिरेकिन्.

The full syllogism in all the three cases are repeated below to make the distinctions clearer :—

(a) केवलव्यतिरेकिन् (purely negative)

1) जीवच्छरीरं सात्मकम्	(The human body has a soul).
2) प्राणादिमत्वात्	(because it breathes etc).
3) यन्न सात्मकं तन्न प्राणादिमत्, यथा घटः	(What is soul-*less* does *not* breathe etc. as a pot.
4) न चेदं तथा (= न अप्राणादिमत्)	(This is *not* so i.e. *not non*-breathing etc.)
5) तस्मान्न तथा (= न अनात्मकं = सात्मकं)	(∴ this is *not* so i.e. *not* soul-*less* = this *has* soul).

(b) केवलान्वयिन् (purely affirmative)

1) विशेषोऽभिधेयः	(The category विशेष is namable).
2) प्रमेयत्वात्	(Because it is cognisable).
3) यत्प्रमेयं तदभिधेयं, यथा घटः	(What is cognisable is namable as a pot).
4) तथा चायं (= प्रमेयः)	(This is so (i.e. cognisable).
5) तस्मात्तथा (= अभिधेयः)	(∴ This is such (i.e. namable).

(c) अन्वयव्यतिरेकिन् (affirmative-negative)

Affirmatively	*Negatively*
1) पर्वतो वह्निमान्	same
2) धूमवत्वात्	same
3) यत्र धूमस्तत्र वह्निः यथा महानसे	यत्र वह्न्यभावस्तत्र धूमाभावः, यथा ह्रदे
4) तथा चायं (= धूमवान्)	न चायं तथा (न धूमाभाववान्)
5) तस्मात्तथा (= वह्निमान्)	तस्मान्न तथा (= न वह्न्यभाववान्) = वह्निमान्

In cases of negative व्याप्ति the conclusion is in the negative form and only after combining the two negatives we arrive at the positive conclusion.

If in the केवलव्यतिरेकि example, we try to put the व्याप्ति in the affirmative form as 'what breathes etc. has a soul', we have

to seek an example to corroborate this (similar to the 'pot' exemplified in the negative व्याप्ति). Such an example is not forthcoming, because 'all that breathe etc.' are included in the पक्ष (= subject) and an example should be one other than the पक्ष itself. In the case of the केवलान्वयि, the negative व्याप्ति would be of the form 'whatever is *not* namable is *not* cognisable' and here also no corroborative example could be had, as there is nothing which is *not* namable and at the same time *not* cognisable. In the former case an example based on identity (साधर्म्य) with the पक्ष is wanting as the पक्ष is co-extensive with the abode of the साध्य. So the केवलव्यतिरेकि is also distinguished as सपक्षदृष्टान्तशून्य. In the case of the केवलान्वयि, an example based on difference (वैधर्म्य) with the पक्ष is lacking as both the साध्य and लिङ्ग are co-extensive everywhere and their negation cannot be had anywhere. So this is termed as विपक्ष-दृष्टान्तशून्य. [सपक्ष and विपक्ष are being explained below in para 51.]

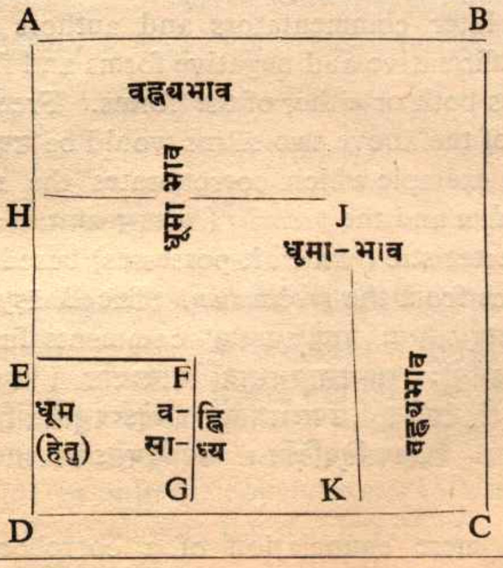
The importance of stating a corroborating instance in the उदाहरणवाक्य would be evident from what has been stated above. Gautama's definition of उदाहरण in the Nyāya Sūtra is as follows :—साध्यसाधर्म्यात् तद्धर्मभावी दृष्टान्त उदाहरणः (1-1-36) and 'तद्विपरीताद्वा विपरीतम्' (1-1-37). It is on the basis of these two sūtras that later commentators and authors have elaborated व्याप्ति into affirmative and negative forms and from that the लिङ्ग which takes both or either of the forms. Freely rendered the substance of the above two sūtras would be उदाहरण is the statement of an example which corroborates the relation between the *probandum* and the *probans* (साध्यसाधनभावः = व्याप्ति) through some characteristic (which it possesses) based on identity with or difference from the *probandum*. The Bhāṣyakāra taking the example 'शब्दोऽनित्यः उत्पत्तिमत्वात्' comments further :—'सोऽयमेकस्मिन् द्वयोर्धर्मयोः साध्यसाधनभावः साधर्म्यात् (विपर्ययाद्वा) व्यवस्थित उपलभ्यते। तं दृष्टान्त उपलभमानः शब्देऽप्यनुमिनोति । शब्दोऽप्युत्पत्ति धर्मकत्वादनित्यः स्थाल्यादिवदिति। उदाह्रियतेऽनेन साध्यसाधनभाव इत्युदाहरणम् ।

That a mere enunciation of a corroborative instance as 'घटवत्' or 'यथा महानसे' does not constitute उदाहरण is evident from the fairly long and pretty vague qualification attached to दृष्टान्त in the above sūtra. Moreover, there would then be no

difference between दृष्टान्त—which is a category by itself according to Gautama—and उदाहरण which is only a member of the syllogism. The भाष्यकार tries to bring out this point by showing the derivation of the word उदाहरण in the last sentence quoted above. 'That which illustrates the relation (व्याप्ति) between two things which function as साध्य and साधन is उदाहरण.' If the corroborative instance does not illustrate the व्याप्ति what else is it supposed to illustrate ? It is thus fairly evident that both the Sūtrakāra and the Bhāṣyakāra have in their minds the enunciation of the व्याप्ति also in the उदाहरण वाक्य, which is followed by the instance where the hearer is supposed to have observed or understood the व्याप्ति. Why then did the Sūtrakāra or the Bhāṣyakāra not state it explicitly is a query wide of the mark—ऋषीणां पर्यनुयोगानर्हत्वात् ।

The Mīmāṁsakas and Vedāntins do not admit केवलव्यतिरेकव्याप्ति as a means of inference, but include it under a separate प्रमाण called अर्थापत्ति or 'presumption' which the Naiyāyikas do not accept as such. This will be adverted to further on under para 65 where our author refutes अर्थापत्ति as a separate प्रमाण.

The threefold divison of व्याप्ति and similar points connected with व्याप्यव्यापकभाव can be illustrated figuratively as well.[a]



(a) This figurative illustration has been borrowed from the edition of Tarka Saṅgraha in the B S P S with grateful aknowledgement but with some modifications.

In the figure on pre-page which shows three squares one inside the other, the largest square A C represents any class higher than the साध्य, वह्नि, say द्रव्य; the middle square H K the sphere of वह्नि, and the smallest square EG the sphere of धूम. The larger gnomon AJC will then represent the sphere of वह्न्यभाव; the largest gnomon AFC the sphere of धूमाभाव and the gnomon HFK, the sphere of वह्नि without धूम (or with धूमाभाव). In अन्वयव्याप्ति—where there is smoke there is fire—only the square E G comes into picture as that is the area where smoke and fire co-exist. Also smoke occupies less space than fire and so the former is व्याप्य and the latter व्यापक. If we state the above व्याप्ति in the wrong way 'where there is fire there is smoke', the sq. HK comes into picture where there is both smoke (sq. EG) as well as 'no-smoke' (gnomon HFK) and so the व्याप्ति is not valid as the व्याप्य (fire), occupies a larger space than the व्यापक smoke.

In व्यतिरेकव्याप्ति—where there is *no fire* there is *no smoke*—the relative clause takes us to the gnomon AJC where there is 'no smoke' also. So the व्याप्ति is valid and the व्याप्य 'no fire' occupies less space than the व्यापक 'no-smoke'. If the same व्याप्ति be stated in the wrong way, 'where there is no smoke there is no fire', the gnomon AGC comes into picture where there is 'no-smoke'; but that includes the gnomon HGK where there is fire. Here the व्यापक 'no-fire' occupies less space than the व्याप्य 'no-smoke' and so the व्याप्ति is invalid. In both cases the gnomon HFK represents the area of invalid व्याप्ति or the area of reasons vitiated by उपाधि such as wet fuel (vide p. 63). The discussion of उपाधि is taken up by the author under 'fallacies', vide para 53 below.

In केवलव्यतिरेकिन् such as 'the living body has a soul because it breathes', the पक्ष, साध्य and हेतु are all co-extensive and all three are represented by the middle square HK. Since a corroborative example has to be one other than the पक्ष we have to seek it from outside the square HK, i.e., the gnomon AKC which is the area representing 'no-soul' and 'non-breathing'. This is the same as saying that no सपक्षदृष्टान्त can be had and so no affirmative व्याप्ति can be possible in such cases.

In केवलान्वयिन् such as 'विशेष is namable because it is cognisable', the साध्य and हेतु are co-extensive and both are represented by the largest square AC and the पक्ष is only a particular thing from it. So another particular thing such as घट, जल etc. can be pointed out from the same area; but no example can be had from outside that area as there is nothing which is 'not namable and not cognisable' at the same time. This is what is meant by saying that a केवलान्वयिहेतु has no विपक्षदृष्टान्त and so has no negative व्याप्ति.

In the case of अन्वयव्यतिरेक व्याप्ति the square EG, the gnomon AJC and the gnomon HFK represent respectively the areas of सपक्ष, विपक्ष and उपाधि; and the पक्ष happens to be any particular from the square EG when the व्याप्ति is affirmative, or any particular from the gnomon AJC when the व्याप्ति is negative. In the case of केवलव्यतिरेकि there is no सपक्ष area other than that of the पक्ष (square HK) and the gnomon AKC represents the विपक्ष area. For a similar reason there is no विपक्ष area in the case of केवलान्वयिहेतु as the whole square AC represents the सपक्ष area.

Having explained the लिङ्ग in detail the author proceeds to explain the characteristics which it should possess to lead to a valid inference.

[48] एतेषां चान्वयव्यतिरेकि—केवलान्वयि—केवलव्यतिरेकि-हेतूनां त्रयाणां मध्ये यो हेतुरन्वयव्यतिरेकी स पञ्चरूपोपन्न एव स्वसाध्यं साधयितुं क्षमते । न त्वेकेनापि रूपेण हीनः । तानि पञ्चरूपाणि पक्षधर्मत्वं, सपक्षे सत्वं, विपक्षाद्व्यावृत्तिः, अबाधितविषयत्वं, असत्प्रतिपक्षत्वं चेति । एतानि रूपाणि धूमत्वादौ अन्वयव्यतिरेकिणि हेतौ विद्यन्ते । तथाहि । धूमवत्वं पक्षस्य पर्वतस्य धर्मः, पर्वते विद्यमानत्वात् । एवं सपक्षे सत्वं, सपक्षे महानसे विद्यत इत्यर्थः । विपक्षात् महाह्रदात् व्यावृत्तिः, तत्र नास्तीत्यर्थः । एवमबाधितविषयं धूमवत्वम् । तथाहि । धूमवत्वस्य हेतोर्विषयस्साध्यो धर्मः अग्निमत्वम् । तच्च केनापि प्रमाणेन न बाधितं, न खण्डितमित्यर्थः । एवमसन् प्रतिपक्षो यस्येत्यसत्प्रतिपक्षो हेतुर्धूमवत्वम् । तथाहि । साध्यविपरीतसाधकं हेत्वन्तरं प्रतिपक्ष इत्युच्यते । स च धूमवत्वे हेतौ नास्त्येव, अनुपलम्भात् । तदेवं पञ्चरूपाणि धूमवत्वे विद्यन्ते । तेनैतद्धूमवत्वमग्निमत्वस्य साधकम् ।

[49] अग्नेः पक्षधर्मत्वं हेतोः पक्षधर्मताबलात् सिध्यति । तथाहि । अनुमानस्य द्वे अङ्गे, व्याप्तिः पक्षधर्मता च । तत्र व्याप्त्या साध्यसामान्यस्य सिद्धिः । पक्षधर्मताबलात् साध्यस्य पक्षसम्बन्धित्वं विशेषः सिध्यति । पर्वतधर्मेण धूमवत्वेन वह्निरपि पर्वतसम्बद्ध एवानुमीयते । अन्यथा साध्यसामान्यस्य व्याप्तिग्रहादेव सिद्धेः कृतमनुमानेन ।

[50] यस्त्वन्वयोऽप्यन्वयतिरेकी हेतुः स सर्वः पञ्चरूपोपन्न एव सद्धेतुः । अन्यथा हेत्वाभासः, अहेतुरिति यावत् । केवलान्वयी चतूरूपोपन्न एव स्वसाध्यं साधयति । तस्य हि विपक्षाद्व्यावृत्तिर्नास्ति, विपक्षाभावात् । केवलव्यतिरेकी च चतूरूप एव । तस्य सपक्षे सत्वं नास्ति, सपक्षाभावात् ।

Translation 48—Out of these three reasons, viz. 'affirmative-negative', 'exclusively affirmative' and 'exclusively negative', the 'affirmative-negative' is capable of establishing its *probandum* only when it has all the five characteristics and not when it lacks any of them. These five are :—

(1) पक्षधर्मत्वम् = Subsistence in the subject.

(2) सपक्षे सत्वम् = Existence in 'positive instances' (= सपक्ष, i.e. all places where the *probandum* is definitely known to exist).

(3) विपक्षाद्व्यावृत्तिः = Non-existence in 'negative instances' (= विपक्ष, i.e., all places where the *probandum* is definitely known *not* to exist).

(4) अबाधितविषयत्वम् = Not subject to any stultifying inference.

(5) असत्प्रतिपक्षत्वम् = Not liable to be counteracted by any reason to the contrary.

All these characteristics exist in all (valid) 'affirmative-negative' reasons such as 'presence of smoke' etc. It is like this. (1) Smoke is an adjunct to the subject hill as it is observed in the hill. (2) It is seen existing in a positive instance, kitchen, (along with fire the *probandum*). (3) It does not exist in a negative instance such as a pond (where fire also does not exist). (4) Similarly the 'presence of smoke' is not subject to any stultifying influence for the object of the reason

(धूमवत्व) is the *probandum* (अग्निमत्व) itself and this is not stultified or contradicted by any means of cognition (प्रमाण). Similarly धूमवत्व does not face any opposing or counteracting reason proving the contrary of the *probandum*. A contrary reason is one which will prove just the opposite of the *probandum* in question. Such a reason is not observed to exist in the case of the reason 'presence of smoke'. Thus the reason धूमवत्व possesses all the five characteristics and is therefore capable of establishing the 'presence of fire'.

49—That fire is an adjunct of the subject (hill) is established by the strength of the reason being an adjunct of the subject in this manner. Inference involves two distinctive factors; (1) the invariable concomitance and (2) the adjunctness of the reason to the subject. By invariable concomitance is established the presence of the *probandum* in general (without reference to any particular subject), and by the adjunctness of the reason to the subject is established the presence of the *probandum* in the subject (in question) in particular. Fire is to be inferred as existing only in the hill (the subject in question) by the presence of smoke *in it*. Otherwise there would be no necessity for inference at all as the presence of the *probandum in general* has already been established by the knowledge of the invariable concomitance (the first factor).

50—All other reasons which have both affirmative and negative kinds of व्याप्ति (as smoke) become valid reasons only if and when they possess all the five distinctive characteristics (explained above). Otherwise (if they lack in any one of them) they become fallacious reasons. Reasons which partake only the affirmative व्याप्ति are endowed with only four of the above characteristics as they do not satisfy the condition 'non-existence in negative instances' as there is no 'negative instance' in their case. Similarly all reasons with only 'negative' व्याप्ति are endowed with only four of the characteristics as they do not exist in 'positive instances' for want of such an instance.

Notes—The five characteristics mentioned in para 48 are nothing new, but have been collected together from the dis-

cussions about व्याप्ति, पक्षधर्मता and लिङ्ग in the earlier paragraphs, to enable the reader to judge whether a particular reason is valid (i e. capable of establishing the *probandum*) or fallacious. The first one पक्षधर्मता is self-evident as without the reason actually existing in the पक्ष no-inference is possible. This wards off the fallacy called असिद्धि = that of unfounded reason. The second सपक्षे सत्वं warns against the fallacy विरोध = that of contradictory reason. The third विपक्षाद्व्यावृत्ति keeps the reason from slipping into the fallacy अनैकान्तिक = that of inconstant reason. The fourth characteristic अबाधितविषयत्व saves the reason from being stultified by any other reason, which is the fallacy called बाध. The fifth one असत्प्रतिपक्षत्व protects the reason from being dragged off by any other reason proving the opposite of the *probandum*, which fallacy is named सत्प्रतिपक्षता. These characteristics help one in an argument to steer clear of the fallacies which the opponent may try to haul up if possible. What these fallacies are and how they prevent valid inferences being drawn are being explained further on from para 52.

Para 49 briefly summarises the Naiyāyika attitude towards inference in general. In this connection the notes under paras 39 to 42 may be referred to.

Similarly para 50 is a recapitulation of the three kinds of लिङ्ग explained in the earlier paras.

In the above discussions the meanings of the terms पक्ष, सपक्ष and विपक्ष have been taken for granted without being defined properly. The author now proceeds to define them in the next para.

[51] के पुनः पक्ष-सपक्ष-विपक्षाः ? उच्यन्ते । सन्दिग्धसाध्यधर्मा धर्मी पक्षः । यथा धूमानुमाने पर्वतः । निश्चितसाध्यधर्मा धर्मी सपक्षः, यथा तत्रैव महानसः । विपक्षस्तु निश्चितसाध्याभावान् धर्मी, यथा तत्रैव ह्रद इति ।

Translation--What is meant by पक्ष, सपक्ष and विपक्ष is being explained (below). पक्ष (= subject) is that in which the presence of the *probandum* is in doubt; e.g; in the inference of fire (in the hill) by seeing smoke issuing from it, the hill is the

subject. सपक्ष (= positive instance) is that in which the *probandum* is definitely known to exist; e.g., the kitchen in the same inference as above. विपक्ष (= negative instance) is that in which the *probandum* is definitely known *not* to exist; e.g., the pond in the same inference.

Notes—It is doubtful whether any real purpose is served by the words धर्म and धर्मी in the above definitions. Chennu Bhaṭṭa's comments here are interesting. "धर्मिग्रहणं पक्षादीनां प्रमाणसिद्धत्वं द्योतयितुम् । अन्यथा प्रमाणशून्यवचनमात्रस्य सद्भावे हेतुर्हेत्वाभासो वेति विभागो न स्यादिति भावः ।" This is not a satisfactory explanation as any statement of a definition is always backed by authority and the use of the word धर्मी does not make it more authoritative. He indicates this clearly in the next sentence : "सन्दिग्धसाध्यः पक्षः, निश्चितसाध्यः सपक्षः, साध्यरहितो विपक्ष इति लक्षणसंग्रहः ."

This definition of पक्ष as 'that in which the existence of the *probandum* is in doubt' is according to the older school and is open to the fault of अव्याप्ति. A man inside the house hears thunder and immediately infers that the sky is cloudy and he had no doubt previously whether the cloud was there or not. This definition would also preclude a man, who had already ascertained fire in the hill by other means, from inferring it again on seeing smoke issuing from there, as he has no doubt and hence no पक्ष. The modern school has therefore adopted another definition, 'सिषाधयिषाविरहविशिष्टसिध्यभावः पक्षता' and पक्ष as the substratum of this पक्षता. सिषाधयिषा means 'the desire to prove the existence of the *probandum*' and सिद्धि is the definite knowledge of its existing in the subject, and this has been qualified by the adjective सिषाधयिषाविरह. So this definition means that पक्षता is the absence of certain knowledge about the existence of the *probandum*, which (knowledge) should at the same time be bereft of the desire to infer the same. This expression is not so confusing as it might appear to be at first sight. It is common experience that one can have inference if he so desires irrespective of whether he has सिद्धि or not. So this gives two ways of having पक्षता. When there is no desire and also no सिद्धि then also there is पक्षता as both the negatives are present directly. Only when there is सिद्धि

and at the same time no desire to infer, there is no पक्षता; for in this case we have सिषाधयिषाविरहविशिष्टसिद्धि and not its अभाव. It is clear therefore that either the desire to infer or the absence of सिद्धि is sufficient to provide the needed पक्षता. Here सिद्धि is an obstructing agent of inference (अनुमितिप्रतिबन्धक) and सिषाधयिषा acts as a neutralising agent (उत्तेजक) against the obstruction सिद्धि. Since उत्तेजकाभावविशिष्टप्रतिबन्धकाभाव is a cause for any effect in general, the above definition of पक्षता is only a particular instance of this principle as applied to inference.

[52] तदेवं अन्वयव्यतिरेकि-केवलान्वयि-केवलव्यतिरेकिणस्त्रयोऽपि दर्शिताः । अतोऽन्ये हेत्वाभासाः । ते चासिद्ध-विरुद्ध-अनैकान्तिक-प्रकरणसम-कालात्ययापदिष्ट-भेदात् पञ्चैव ।

Translation—Thus the three kinds of reasons viz., (1) those that have both affirmative and negative व्याप्ति; (2) those that have only affirmative व्याप्ति; and (3) those that have only the negative one, have been explained. All others are fallacious or erroneous reasons. They are of five kinds only as follows :-

(1) असिद्ध = The unfounded or unknown reason.
(2) विरुद्ध = The contradictory reason.
(3) अनैकान्तिक = The inconstant or straying reason.
(4) प्रकरणसम = The counterbalanced or opposing reason.
(5) कालात्ययापदिष्ट = The stultified or belated reason.

Notes—From what has been stated so far it is clear that the लिङ्ग or हेतु is the most important factor in inference in as much as it leads through व्याप्ति and परामर्श to a valid conclusion. It is therefore equally necessary to know why particular reasons do not give rise to valid conclusions in order to steer clear of them even in ordinary parlance. Such reasons are technically called हेत्वाभासाः and their treatment forms an essentially important, though difficult, topic under अनुमान.

हेत्वाभास as such is the thirteenth category of Gautama, vide his sūtra quoted on page 4 under para 2; and our author treats of them again in detail from paras 136 to 148 under Part II. There also he distinctly states : "उक्तानां पक्षधर्मतादिरूपाणां मध्ये

एकेनापि रूपेण हीना असद्धेतवः ।" It means that those reasons which fall short of any one if these five essential characteristics, पक्षधर्मता etc., become fallacious reasons. This may be taken as the author's definition of हेत्वाभास in general.

The word हेत्वाभास can be interpreted in two ways according as how the compound is dissolved. If it is dissolved as हेतोराभासः it means हेतुदोष or fallacy of the reason. If it is derived as हेतुवदाभासत इति हेत्वाभास; it means दुष्टहेतु or fallacious reason. Here the author has given the classification of fallacious reasons according to the second meaning. The fallacies would then be named (in the same order) as (1) असिद्धि (2) विरोध, (3) अनेकान्त (or व्यभिचार), (4) प्रकरणसमत्व (or सत्प्रतिपक्षता), and (5) कलात्ययापदेश (or बाध).

As a matter of fact the above-mentioned five-fold division is based on हेतुदोषs and not on दुष्टहेतुs and therefore the distinction between the two meanings becomes significant. A reason may have two or more of the above fallacies; e.g. in the inference पर्वतो धूमवान् वह्नेः the हेतु has the fallacies (1) and (3) of the above list; in ह्रदो वह्निमान् धूमात् the हेतु has (1), (4) and (5); in ह्रदो धूमवान् वह्नेः, the हेतु has four of them (all except 2); and in an inference like वायुर्गन्धवान् स्नेहात् the हेतु possesses all the five. In such cases the classification of the दुष्टहेतुs under any particular head would be misleading and so the Naiyāyikas have classified all errors that are possible in a हेतु under five broad heads. A सद्धेतु has to fulfil only five conditions and a reason can become दुष्ट by not satisfying any one or more or all the five of these conditions. A हेतु can have more than one fallacy at a time, but the fallacies themselves are distinct and separate just like a man who is rich and pious can at the same time be stingy and cruel. This is expressed in Sanskrit as उपाधेयसङ्करेऽप्युपाधेरसङ्करः, i.e. the vitiated things may merge in one substratum, but the vitiating circumstances themselves do not merge into one (but remain separate).

Another definition of हेत्वाभास adopted by later Naiyāyikas is as follows :— अनुमितितत्करणान्यतरप्रतिबन्धकयथार्थज्ञानविषयत्वं हेत्वाभासत्वम्. It means that a हेत्वाभास is that which is the subject of a valid cognition which obstructs the inference directly

or indirectly by preventing the ascertainment of its instrument परामर्श or व्याप्ति. From the examples given below under individual fallacies it will be seen that fallacies (1), (2) and (3) prevent व्याप्तिज्ञान or परामर्श and thus prevent inference indirectly, while nos. (4) and (5) obstruct inference directly. Hence the necessity of the phrase अनुमिति-तत्करणान्यतर in the above definition. At what stage in the process of inference these fallacies become obstructions to valid conclusions is illustrated under each fallacy in the subsequent paragraphs.

There is some difference in the number and names of these fallacies between the Vaiśeṣikas and the Naiyāyikas. Kaṇāda's Sūtra enumerating the fallacies is pretty obscure—अप्रसिद्धोऽनपदेशोऽसन् सन्दिग्धश्च। (V. S. III-1-15). Later writers generally follow the interpretation of the commentator प्रशस्तपाद who sums up the view of the Sūtrakāra in the following half-verse, 'विरुद्धासिद्धसन्दिग्धमलिङ्गं काश्यपोऽब्रवीत्।' Kāśyapa (i.e. Kaṇāda) declared विरुद्ध, असिद्ध and सन्दिग्ध as the three non-reasons (अलिङ्ग) or fallacious reasons. The first two correspond to nos. (2) and (1) of the list given by Keśava Miśra, while the third सन्दिग्ध is equated to अनैकान्तिक, or सव्यभिचार. प्रशस्तपाद adds a fourth one अनैध्यवसित to the above three; but later commentators include it under the अनुपसंहारि variety of अनैकान्तिक.

The Buddhist logicians (vide ध. की. न्या. बि. Ch. III.) in general follow Kaṇāda both in the number and naming of the fallacious reasons, as they attribute only three of the essential characteristics (omitting the last two) to a valid reason.

Gautama in his न्या-सू-1-2-4 enumerates the five fallacious reasons as follows :—सव्यभिचार–विरुद्ध–प्रकरणसम-साध्यसम–कालातीता हेत्वाभासाः—Of these the first one is equated to अनैकान्तिक by Gautama himself in his next Sūtra as अनैकान्तिकः सव्यभिचारः (न्या-सू-1-2-5). साध्यसम corresponds to असिद्ध and कालातीत to कालात्ययापदिष्ट. Gaṅgeśa, the founder of Navya-Nyāya, following Gautama, enumerates them in the same order, but with slight change in the names as 'ते च सव्यभिचार-विरुद्ध-सत्प्रतिपक्ष-असिद्ध-बाधिताः पञ्च।'

Next the author begins to describe the individual fallacious reasons in the order he has followed.

[53] (a) तत्रासिद्धस्त्रिविधः, आश्रयासिद्धः स्वरूपासिद्धो व्याप्यत्वासिद्ध इति। आश्रयासिद्धो यथा, गगनारविन्दं सुरभि, अरविन्दत्वात्, सरोजारविन्दवत्। अत्र गगनारविन्दमाश्रयः। स तु नास्त्येव।

(b) स्वरूपासिद्धो यथा, शब्दोऽनित्यः, चाक्षुषत्वात्, घटवत्। अत्र चाक्षुषत्वं हेतुः। स च शब्दे नास्त्येव, तस्य श्रावणत्वात्।

(c) व्याप्यत्वासिद्धस्तु द्विविधः। एको व्याप्तिग्राहकप्रमाणाभावात्। अपर उपाधिसद्भावात्। तत्र प्रथमो यथा, यत्सत् तत्क्षणिकं, यथा जलधरः संश्च शब्दादिः। न च सत्वक्षणिकत्वयोर्व्याप्तिग्राहकं प्रमाणमस्ति। सोपाधिकतया त्वस्य व्याप्यत्वासिद्धावुच्यमानायां क्षणिकत्वमभ्युपगतं स्यात्।

(d) द्वितीयो यथा, क्रत्वन्तर्वर्त्तिनी हिंसा अधर्मसाधनं हिंसात्वात्, क्रतुबाह्यहिंसावत्। अत्राऽधर्मसाधनत्वे हिंसात्वं न प्रयोजकम्। किन्तु निषिद्धत्वमेव प्रयोजकं, उपाधिरिति यावत्। तथाहि। साध्यव्यापकत्वे सति साधनाव्यापक उपाधिरित्युपाधि–लक्षणम्। तच्चास्ति निषिद्धत्वे। निषिद्धत्वं हि साध्यस्य व्यापकम्। यतो यत्र यत्राऽधर्मसाधनत्वं तत्र तत्र निषिद्धत्वमिति। एवं साधनं हिंसात्वं न व्याप्नोति निषिद्धत्वम्। नहि यत्र यत्र हिंसात्वं तत्र तत्र निषिद्धत्वं, यज्ञीयहिंसायां निषिद्धत्वाभावात्। तदेवं निषिद्धत्वस्योपाधेः सद्भावादन्यप्रयुक्तव्याप्त्युपजीवि हिंसात्वं व्याप्यत्वासिद्धमेव।

Translation (*a*)—Of these असिद्ध is of three kinds. (1) आश्रयासिद्ध = that reason whose subject (आश्रय or पक्ष) is unknown. (2) स्वरूपासिद्ध = that reason whose very form (स्वरूप) is known *not* to exist in the subject. (3) व्याप्यत्वासिद्ध = that reason which has its invariable concomitance with the *probandum* unfounded. An example of the first (आश्रयासिद्ध) is the syllogism, 'a sky-lotus is fragrant, because it is a lotus, like a lotus in the pond.' Here sky-lotus in the subject and that is totally non-existent.

(b) An example of स्वरूपासिद्ध is 'sound is transitory because it is visible like a pot.' Here visibility is the reason, but that is quite unknown in sound as it is only audible.

(c) The third व्याप्यत्वासिद्ध is of two kinds :—one caused by the absence of any evidence to grasp the व्याप्ति, and the second caused by the presence of उपाधि or adventitous circumstance (vide notes under para 36). An example of the first kind is this :—"Whatever is an entity is momentary, like a mass of clouds. Sound etc. are entities (and hence momentary)". Here there is no evidence which enables one to ascertain the व्याप्ति 'यत् सत् तत्क्षणिकम्'. If this fallacious reason (सत्त्व) is also to be included under the other kind of व्याप्यत्वासिद्ध caused by उपाधि, it would amount to accepting the view that the *probandum* (क्षणिकत्व) exists in the subject.

(d) An example of the second variety of व्याप्यत्वासिद्ध (caused by उपाधि) is this :—'Killing in a sacrifice causes demerit because it is an act of killing, just like killing outside sacrifices'. In this case 'killing' as such is not a cause (प्रयोजक) for demerit; but 'the fact of being prohibited by scriptures (निषिद्धत्व)' is the cause for demerit. So 'prohibitedness' acts as उपाधि in this case. It is like this. The definition of उपाधि is that it is a thing which is co-extensive with the *probandum* in question and which at the same time is not co-extensive with the *probans*. निषिद्धत्व is co-extensive with the *probandum* अधर्मसाधनत्व, because there exists the व्याप्ति 'where there is अधर्मसाधनत्व there exists निषिद्धत्व'. At the same time it does not pervade the *probans* हिंसात्व, for there is no such व्याप्ति 'where there is हिंसात्व there exists निषिद्धत्व', as the latter does not exist in sacrificial killing. Because निषिद्धत्व acts as उपाधि in this case, the reason हिंसात्व, which is dependent on the invariable concomitance of some other thing, becomes व्याप्यत्वासिद्ध (as defined above).

Notes—The fallacy असिद्धि actually means 'the fact of not being known or ascertained.' To understand the technical sense in which it is used here the reader may recollect the general form of परामर्श explained under para 35—साध्यव्याप्यहेतुमान् पक्ष : or व्याप्तिविशिष्टहेतुमान् पक्षः—This involves पक्ष as the substantive, हेतु as its direct attribute and व्याप्ति as a direct attribute to हेतु and hence indirectly of पक्ष. The absence of any one of the three will prevent the complex परामर्श being grasped. The unknown or unfounded thing in the word

असिद्धि refers to these three parts of परामर्श and thus we get three varieties of असिद्धि. If the पक्ष is unfounded the fallacy is called आश्रयासिद्धि (आश्रय = पक्ष or subject). If the हेतु, is unproved the fallacy becomes स्वरूपासिद्धि (स्वरूप = the essential form of the हेतु). If the व्याप्ति is the unproven thing it gives rise to the third variety व्याप्यत्वासिद्धि (व्याप्यत्व = व्याप्ति). Though there are thus three distinctive fallacies they are classed under one broad head असिद्धि with three sub-divisions because all three in effect prevent परामर्श, the instrument for inference.

In the example of आश्रयासिद्ध given in the text the पक्ष is गगनारविन्द and its delimiting adjunct, पक्षतावच्छेदकधर्म, is गगनीयत्व (= growing in the sky). This when applied to qualify lotus reduces the latter to an imaginary thing and thus the पक्ष becomes असिद्ध. Another instance of आश्रयासिद्ध occurs when the syllogism is expressed as काञ्चनमयः पर्वतो वह्निमान् धूमात्. Here the delimiting adjunct काञ्चनमयत्व may not reduce the hill to an imaginary thing; but it certainly is a superfluity acting as an unnecessary bar on the पक्ष when one is trying to infer fire in it. From these examples आश्रयासिद्धि can also be defined as पक्षे पक्षतावच्छेदकाभावः or simply पक्षताभावः.

The second variety स्वरूपासिद्धि (as explained above) can be defined as पक्षे हेत्वभावः and the example given makes it clear. Other examples such as ह्रदो वह्निमान् धूमात्, गगनमनित्यं कृतकत्वात् etc. can be easily gathered. When it is known that the हेतु is absent in the पक्ष, the question of पक्षधर्मता does not arise and thus the first requisite of a सद्धेतु is non-existent. The author himself explains in some detail the various ways in which a हेतु becomes स्वरूपासिद्ध under para 138 at the end of the book when he treats of हेत्वाभास's again as a separate category.

व्याप्यत्वासिद्धि, the third variety, has already been explained as पक्षे व्याप्यतावच्छेदकाभावः. This can happen in two ways :— (1) When there is no evidence for ascertaining व्याप्ति; or (2) When the apparent व्याप्ति is proved to be false by an adventitious circumstance or factor technically called उपाधि. These two are sometimes called साध्यासहचरितो हेतुः and सोपाधिको हेतुः respectively. The example for the first kind is borrowed by

the author from the Buddhist logicians who hold that all entities (सन्तः) are momentary (क्षणिक). The syllogism is therefore stated with only two members as the Buddhists do :— यत् सत् तत् क्षणिकं, यथा जलधरः (दृष्टान्त); and संश्च शब्दादिः (उपनय). Though the Buddhist may try to justify the syllogism in his own way the Naiyāyika does not see any means of ascertaining the व्याप्ति here between सत्त्व and क्षणिकत्व*. Even if someone were to doubt that there might be some such व्याप्ति, a doubtful one is as good as no व्याप्ति and the हेतु still remains व्याप्यत्वासिद्ध.

To avoid the controversy later Naiyāyikas give the example for साध्याऽसहचरितहेतु as पर्वतो वह्निमान् काञ्चनमयधूमात्. The addition of the attribute काञ्चनमय to the हेतु makes it different from ordinary smoke of the kitchen etc. with which only its व्याप्ति with fire has been ascertained by the observer. In as much as there is no व्याप्ति of काञ्चनमयधूम with fire such a व्याप्यहेतु does not exist in the पक्ष and so the हेतु becomes fallacious. In स्वरूपासिद्ध the हेतु as such does not exist in the पक्ष; while in व्याप्यत्वासिद्ध it is the व्याप्यहेतु that is absent for want of the adjunct व्याप्ति. We shall have occasion to refer to this point again when we come to अनैकान्तिक, where also the preventive factor (प्रतिबन्धकता) is due to lack of व्याप्ति.

For the second type of व्याप्यत्वासिद्ध, i.e. सोपाधिकहेतु, the author has already given three examples of उपाधि when he describes व्याप्ति as अनौपाधिकस्सम्बन्धः (vide para 36). Here he defines उपाधि in technical terms and shows how the definition applies to one of the examples alluded to earlier. उपाधि is derived as उप = समीपवर्तिनि आदधाति = स्वधर्मं संक्रामयति, इत्युपाधिः; meaning thereby that उपाधि is such a thing that, for the time being, imparts some of its properties to another thing which

* All the printed editions except B read the text here as "शब्दः क्षणिकः, सत्त्वात् । यत्सत् तत्क्षणिकं, यथाजलधरपटलम् । तथा च शब्दादिः ।" But Ch. Bh., one of the oldest commentators, does not approve of this reading as he clearly says "सौगतमतावलम्बनेनावयवद्वयोपन्यासो युक्तः" । This syllogism occurs in ज्ञानश्रीमित्र's क्षणभंगाध्याय as the first line of the initial verse 'यत्सत् तत्क्षणिकं यथाजलधरस्सन्तस्तु भावा इमे' (vide ज्ञानश्रीमित्रनिबन्धावली published by KPJRI, Patna).

comes in contact with it. When a piece of crystal is placed over or near a red flower, the latter imparts its colour to the crystal which then appears to be red. The flower acts as उपाधि here for the appearance of redness in the crystal. In the stock example पर्वतो धूमवान् वह्नेः, contact with wet fuel, आर्द्रेन्धन-संयोग, plays the role of उपाधि. It is well known that smoke is caused only when fire comes in contact with wet fuel. Wet fuel is as intimate a cause for smoke as fire is and so we have the valid व्याप्ति 'यत्र धूमस्तत्रार्द्रेन्धनसंयोगः'. In other words आर्द्रेन्धन-संयोग becomes व्यापक to धूम—the साध्य in the above example. But there is no such connection of fire with wet fuel for either can exist without the other as in a red-hot piece of metal or in a fuel stack exposed to rain. In other words आर्द्रेन्धनसंयोग is not a व्यापक of fire, the reason here; and so satisfies the condition for उपाधि. The same result can be deduced by a different reasoning. Both fire and wet fuel are causes for smoke and so are व्यापक's in relation to it. By seeing the effect (कार्य) we can infer the cause (कारण) and not *vice versa*. In 'धूमवान् वह्नेः' the attempt is to infer the effect (धूम) from one of the causes (वह्नि) and so the other absent cause (wet fuel) points out a place where the co-existence of the हेतु with साध्य is absent (e.g. red-hot metal). This is what the author means when he says "प्रयोजकश्चोपाधिरित्युच्यते" in para 36 (p. 62).

Three examples of उपाधि are mentioned in para 36. Of these the first two have been examined above—आर्द्रेन्धनसंयोग and निषिद्धत्व. These two become साध्यव्यापक absolutely, i.e. without the intervention of any other attribute to their साध्य's. In other words the व्याप्ति's in the two cases, 'यत्रधूमस्तत्रार्द्रेन्धन-संयोगः' and 'यत्राऽधर्मसाधनत्वं तत्र निषिद्धत्वम्' are valid as they are. Such instances are classed as 'केवलसाध्यव्यापकोपाधि. There are however instances where उपाधि becomes साध्यव्यापक only when the साध्य is qualified by some other attribute. Such attributes can be taken from the साधन (= हेतु), or the पक्ष of the syllogism in question or from any other source outside these two. These are then termed, (2) साधनावच्छिन्नसाध्यव्यापक, (3) पक्षधर्मावच्छिन्नसाध्यव्यापक and (4) उदासीनधर्मावच्छिन्नसाध्यव्यापक. An instance of the second kind occurs in the inference of black complexion in Maitri's child, the third example for उपाधि

mentioned by the author in para 36. Here the full syllogism would be गर्भस्थशिशुः श्यामः मैत्रीतनयत्वात्, दृश्यमानमैत्रीतनयवत्, where शाकपाकजत्व is shown to be an उपाधि. This is not व्यापक to the *probandum* श्यामत्व as it is, for the व्याप्ति, यत्र श्यामत्वं तत्र शाकपाकजत्वं is not true, e.g. in a crow or a black vessel. But if the साध्य is qualified by the हेतु itself and the व्याप्ति is stated as यत्र मैत्रीतनयत्वावच्छिन्नश्यामत्वं तत्र शाकपाकजत्वं it is found to be true in the case of the other children of मैत्री who are observed to be dark.

An example of the third variety of उपाधि can be seen in a syllogism like वायुः प्रत्यक्षः प्रत्यक्षस्पर्शाश्रयत्वात् where उद्भूतरूप (manifest colour) becomes an उपाधि. Here also if the व्यापकत्व is taken with the stated साध्य as यत्र प्रत्यक्षत्वं तत्रोद्भूतरूपं, this is found to fail in मानसप्रत्यक्ष. If however the साध्य is qualified by some attribute taken from the पक्ष (वायु here) and the व्याप्ति is stated as यत्र बहिर्द्रव्यत्वावच्छिन्नप्रत्यक्षत्वं तत्रोद्भूतरूपवत्वं it is found to be valid.

The fourth variety of उपाधि occurs in syllogisms like प्रागभावो विनाशी प्रमेयत्वात्, where भावत्व (the fact of being a positive entity) acts as उपाधि. To make it साध्यव्यापक, the साध्य has to be qualified by some such attribute as जन्यत्व; for the व्याप्ति, यत्र विनाशित्वं तत्र भावत्वं fails in प्रागभाव which is destructible but not a भाव. If the व्याप्ति be stated as यत्र जन्यत्वावच्छिन्नविनाशित्वं तत्र भावत्वं it is found to be true. जन्यत्व being neither a साधन धर्म nor a पक्षधर्म, भावत्व becomes an instance of उदासीनधर्मावच्छिन्नसाध्यव्यापकोपाधि.

In the last two varieties of उपाधि, साधनाव्यापकत्व should also be taken with the साधन qualified by the same attribute used to qualify the साध्य; e.g. यत्र बहिर्द्रव्यत्वावच्छिन्नप्रत्यक्षस्पर्शाश्रयत्वं तत्रोद्भूतरूपं इति नास्ति (यथा वायौ). Similarly in the case of भावत्व also. Otherwise these will not become उपाधि's and thus there will arise the defect अव्याप्ति. Again these two, साध्यव्यापकत्व and साधनाव्यापकत्व, should be governed by the same relation (संबन्ध) to avoid the defect अतिव्याप्ति. Otherwise in a valid reason like वह्निमान् धूमात्, one can always find an उपाधि which co-exists with the साध्य through one relation and does not co-exist with the साधन through another relation. For instance

यत्र बह्निस्तत्र संयोगेनाऽलोकः इति साध्यव्यापकत्वम् and यत्र धूमस्तत्र समवायेनाऽलोको नास्तीति साधनाव्यत्पाकत्वम्. Thus by resorting to different relationships आलोक (light or brightness) can be made to act as उपाधि even in a सद्धेतु. This is expressed in Sanskrit as साध्यव्यापकत्व साधनाव्यापकत्वे एकप्रकारेण एकसंबन्धेन च ग्राह्ये ।

The vicious nature of उपाधि can be represented graphically as we did in the case of सद्धेतु, vide p 86. In the figure on that page it is shown that the gnomon HFK represents the area where साध्य alone exists without the हेतु, i.e. the area of अयोगेलक and similar उपाधि's. In the case of a सोपाधिकहेतु such as धूमवान् वह्नेः, धूम being व्यापक occupies the larger square H K and वह्नि, the व्याप्य, occupies the smallest square E G. आर्द्रेन्धनसंयोग, the उपाधि, being व्यापक to the साध्य, धूम ought to occupy the whole square DB. If so, in the gnomon HFK there should exist wet fuel and smoke but no fire. This is an impossibility as smoke is the outcome of contact of fire with wet fuel. This impossibility is what an उपाधि indicates. If वह्नि were to be a valid हेतु for inferring smoke, आर्द्रेन्धनसंयोग would become व्यापक of वह्नि, which it is *not* as is seen in a red-hot piece of iron. Because वह्नि strays away (व्यभिचरति) from the उपाधि, it will stray away from the व्याप्य of the उपाधि according to the general rule 'यो यद्व्यापकव्यभिचारी स तद्व्यभिचारी.'

This also explains why उपाधि does not prevent inference or its instrument directly, but only points out a way to find out व्यभिचार or inconstancy in the proposed हेतु. This is expressed as उपाधिर्व्यभिचारोन्नायकः. For the same reason उपाधि as such is not considered as a हेत्वाभास. Some later Naiyāyikas do not include सोपाधिकहेतु under व्याप्यत्वासिद्ध; e.g. विश्वनाथ mentions only नीलधूम as an example of व्याप्यत्वासिद्ध (Kar. 87) and treats of उपाधि at the end of the book saying 'व्यभिचारस्यानुमानमुपाधेस्तु प्रयोजनम्' (Kar. 140). Such authors would like to include सोपाधिकहेतु under अनैकान्तिक. Keśava Miśra also hints at this view indirectly when he uses the phrase 'अन्यप्रयुक्तव्याप्त्युपजीवि हिंसात्वम्' in the last sentence of para 53 (d).

One point in the last sentence of para 53 (c)—सोपाधिकतया त्वस्य व्याप्यत्वासिद्धावुच्यमानायां क्षणिकत्वमभ्युपगतं स्यात्—requires some

explanation which was postponed till after उपाधि was explained. The author has stated that there is no evidence to grasp the व्याप्ति 'यत्सत् तत्क्षणिकम्'. Naturally the question arises—why not then find out an उपाधि and classify सत्त्व as a सोपाधिकहेतु ? Such an उपाधि exists in उत्पत्तिमत्त्व or कार्यत्व or ध्वंसप्रतियोगित्व; for we have यत्र क्षणिकत्वं तत्रोत्पत्तिमत्त्वं यथा शब्दे—साध्यव्यापकत्व—and at the same time we do *not* have 'यत्र सत्त्वं तत्रोत्पत्तिमत्त्वं', as such a व्याप्ति fails in eternal things like ether etc.—साधनाव्यापकत्व. This would mean that उत्पत्तिमत्त्व is a cause for क्षणिकत्व and that even though it could not be established by the reason सत्त्व, क्षणिकत्व could be established by उत्पत्तिमत्त्व just as धूम by आर्द्रेन्धनसंयोग and अधर्मसाधनत्व by निषिद्धत्व. This implies that क्षणिकत्व is being accepted; but this position is against the accepted doctrine of the Naiyāyikas who contend that any produced thing can be destroyed only in the third moment from origin and not in the second moment as the Buddhists argue. This in brief, is what the author means in the above cryptic sentence.

It will be of interest to note that the example of उपाधि cited in the text—निषिद्धत्व—is borrowed by the author from the Jain authors, just as the previous syllogism is borrowed from the Buddhists. The Jains hold that *all* killing without exception leads to sin. This syllogism, according to them, is quite valid and is put forward by them to refute the stand of the Hindus.

Readers who find it difficult to understand the characteristic of उपाधि through its technical definition given in the text may remember the following verse of विश्वनाथ, which in effect means the same thing but clothed in simpler words.

सर्वे साध्यसमानाधिकरणाः स्युरुपाधयः ।
हेतोरेकाश्रये येषां स्वसाध्यव्यभिचारिता ॥ (Kar. V. 139)

i.e. All उपाधिs are co-existent with the proposed साध्य; and in some substratum of the proposed हेतु, both that उपाधि and साध्य will be absent. अयोगोलक and यागीयहिंसा are examples of such substratum.

[54] साध्यविपर्ययव्याप्तो हेतुर्विरुद्धः । स यथा शब्दो नित्यः कृतकत्वात् गगनवत्[(a)] । कृतकत्वं हि साध्यनित्यत्वविपरीतानित्यत्वेन

(a) आत्मवत्, घटवत्, आकाशवदिति पाठान्तरम् । दृष्टान्ताभावः सुष्ठुतर इत्यस्मद्गुरुचरणाः ।

व्याप्तम् । यत्कृतकं तदनित्यमेव । न नित्यमित्यतो विरुद्धं कृतकत्वम् ।

Translation—The contradictory reason is that which has invariable concomitance with the negation of the *probandum* (in question); e.g. sound is eternal because it is a product, like ether. The fact of being a product is actually concomitant with non-eternality, the opposite of the *probandum* here. What is produced is always non-eternal and not eternal. Therefore the reason 'being a product' becomes a contradictory one.

Notes—From the definition it is clear that a विरुद्धहेतु can exist only in विपक्ष's and so lacks the characteristic विपक्षासत्त्व. In प्रकरणसम it is a second हेतु that proves साध्याभाव whereas in विरुद्ध it is the proposed हेतु itself which proves it. The use of a विरुद्धहेतु in an argument exposes not only the person's inability but his ignorance as well.

[55] सव्यभिचारोऽनैकान्तिकः । स द्विविधः, साधारणोऽसाधारणश्चेति । तत्र पक्षसपक्षविपक्षवृत्तिः साधारणः । यथा शब्दो नित्यः प्रमेयत्वात् । अत्र प्रमेयत्वं हेतुर्नित्यानित्यवृत्तिः । यस्सपक्षाद्विपक्षाच्च व्यावृत्तः पक्षे एव वर्तते सोऽसाधारणः । यथा भूर्नित्या गन्धवत्वात् । गन्धवत्वं हि सपक्षान्नित्यात् विपक्षादनित्याच्च व्यावृत्तं भूमात्रवृत्ति ।

Translation—The straying reason is that which is inconstant (सव्यभिचार). It is of two kinds, the common strayer and the peculiar strayer. That which exists in all the three* पक्ष, सपक्ष and विपक्ष, is the common strayer; e.g. (in the syllogism) sound is eternal because it is cognisable, the reason cognisability exists in all eternal and non-eternal things. That (reason) which is absent from both सपक्ष and विपक्ष but exists only in the पक्ष, becomes the peculiar strayer, as (in the syllogism) 'earth is eternal because it has smell' the reason smell does not exist in any सपक्ष or विपक्ष, but exists only in earth (पक्ष).

Notes—The word अनैकान्तिक means 'that which does not stick to one thing, but strays in different ways'. सव्यभिचार

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* These three have been explained in para 51.

also, in effect, means the same thing. The two words are synonymous and one is not the definition of the other. A general definition of this fallacy is साधारणाद्यन्यतमत्व—the fact of being anyone out of its different varieties साधारण etc. The author recognises only two sub-divisions of this हेत्वाभास—साधारण and असाधारण. If a हेतु does not reside in the पक्ष the fallacy becomes स्वरूपासिद्धि and so the word पक्ष is not necessary in the definition of साधारण. Because it resides both in सपक्ष and विपक्ष it gives rise to two contradictory cognitions as हेतुस्साध्यव्याप्यः and हेतुस्साध्याभावव्याप्यः and hence no valid व्याप्ति can be had. It differs from विरुद्ध in that the latter resides only in विपक्ष and gives rise to the notion हेतुस्साध्याभावव्याप्यः. In other words in विरुद्ध the व्याप्ति is contrary while in साधारणव्यभिचार it is only doubtful or imperfect. Other examples of this variety are common due to hasty unfounded generalisations, e.g. पर्वतो वह्निमान् द्रव्यत्वात्; पर्वतो धूमवान् वह्नेः; etc.

The second variety असाधारण occurs when the हेतु does *not* exist in both सपक्ष and विपक्ष. Its absence in विपक्ष is of course what is needed, but its inconstancy comes from its not occupying its proper place. In other words साधारण is so wide that it trespasses into for-bidden area विपक्ष, while the other, its opposite, असाधारण, is so narrow that it does not occupy even its allotted space सपक्ष. So both are equally faulty. Another example of this kind is शब्दो नित्यः शब्दत्वात् where the हेतु शब्दत्व does not exist in नित्य or अनित्य things, but only in the पक्ष.

There is another variety of अनैकान्तिक called अनुपसंहारिन् or अनुपसंहार्य mentioned by almost all later writers. From the way उदयनाचार्य speaks of this हेत्वाभास, it is evident that this three-fold division is an accepted fact before his times—cf. एतेन साधारणाऽसाधारणाऽनुपसंहार्याः संगृहीता इति स्फुटम् (vide न्यायपरिशुद्धि under N. S. 1-2-5). The word अनुपसंहारिन् means one without a conclusion and so the हेत्वाभास can be translated as 'the inconclusive strayer.' This has been explained as follows in the तर्ककौमुदी :—"वस्तुमात्रपक्षकोऽनुपसंहारी। यथा सर्वमनित्यं प्रमेयत्वादिति। अत्र सर्वस्यैव पक्षत्वात् प्रमेयत्वहेतुरनुपसंहारी। एतज्ज्ञानमपि व्याप्तिग्रहे प्रतिबन्धकम्। सर्वस्य पक्षत्वे व्याप्तिग्राहकसहचारदर्शनस्थलाभावेन सहचारनिश्चयाभावे सति व्याप्तेरनिश्चयात्।" The idea behind this argument

is that when 'all things' are included under पक्ष, there is no place where the co-existence of the हेतु with साध्य can be pointed out positively or negatively and so no व्याप्ति can be ascertained. This is the view of the older logicians. The modern school does not agree to this totally. They contend that in a केवलान्वयिहेतु like सर्वमभिधेयंप्रमेयत्वात्, a reasonably valid व्याप्ति can be had by taking particular cases where the co-existence has been observed, as यत्र प्रमेयत्वं तत्राभिधेयत्वं यथा घटे, पटे etc. Till a contradictory instance is pointed out the conclusion drawn can also be reasonably valid. They therefore define अनुपसंहारिन् as अत्यन्ताभावप्रतियोगिसाध्यकादि and hold that this prevents the grasp of व्यतिरेकव्याप्ति (Vide S. M. under Kar. 71).

The example given in the text for साधारण is शब्दो नित्यः प्रमेयत्वात् and that for अनुपसंहारिन् quoted above is सर्वं नित्यं प्रमेयत्वात्. The remark of our author under साधारण 'अत्र प्रमेयत्वं हेतुर्नित्यानित्यवृत्तिः' would apply equally to अनुसंहारिन् as well. In what respect then does the latter differ from the former? The advocates of अनुपसंहारिन् argue that a certainty or uncertainty ascertained from particular individuals comprising the whole may not be true when applied to the *whole* as such, there being an element of doubt still lurking behind. Those who do not subscribe to this view like केशवमिश्र would include अनुपसंहारिन् under one or other of the above two varieties of सव्यभिचार according as emphasis is laid on विपक्षसत्त्व or पक्षमात्रवृत्तित्व.

If we look more closely at the principle behind this subdivision of अनैकान्तिक there appears to be some justification for accepting अनुपसंहारिन् as a third variety. It has been mentioned earlier that the absence of one or more of the essential conditions—here सपक्षसत्त्व and विपक्षासत्त्व—would make the हेतु fallacious. This can happen only in three ways :—(1) by the absence of विपक्षासत्त्व when the हेतु is named साधारण; (2) by the absence of सपक्षसत्त्व when it is named असाधारण; and (3) by the absence of both when it is called अनुपसंहारिन्.

It should be noticed that the preventive factor in अनैकान्तिक lies in the imperfect or doubtful व्याप्ति between the proposed

हेतु and साध्य and not in the absence of सपक्ष and विपक्ष instances, which only provides a convenient means of detecting the fallacy. This can be understood clearly by a close look at the following examples where examples of केवलान्वयि and केवलव्यतिरेकि सद्धेतु's are given side by side of the three kinds of अनैकान्तिक.

I अन्वयव्यतिरेकि सद्धेतु......पर्वतो वह्निमान् धूमात्.

II केवलान्वयि सद्धेतु.........पर्वतोऽभिधेयः प्रमेयत्वात्.

साधारणानैकान्तिक.........पर्वतो नित्यः प्रमेयत्वात्.

III केवलव्यतिरेकिसद्धेतु......पर्वत इतरभेदवान् पर्वतत्वात्.

असाधारणानैकान्तिक...,...पर्वतो नित्यः पर्वतत्वात्.

IV केवलान्वयिसद्धेतु.........इदं वाच्यं ज्ञेयत्वात्.

अनुपसंहार्यनैकान्तिक......सर्वं नित्यं ज्ञेयत्वात्.

The distinction between व्यभिचार and व्याप्यत्वासिद्धि is important since the preventive factor in both is due to the absence of व्याप्ति. व्यभिचार is what prevents व्याप्ति directly while व्याप्यत्वासिद्ध only indicates the absence of व्याप्ति. In the syllogism पर्वतो वह्निमान् प्रमेयत्वात्, the हेतु is too wide to contain within its scope the साध्य and so the व्याप्ति यत्र प्रमेयत्वं तत्र वह्निमत्वं is immediately seen to be invalid. In 'धूमवान् वह्नेः', till a place like अयोगोलक is found, it is impossible to say whether fire has व्याप्ति with smoke or not. In the syllogism क्षणिकः सत्वात् also, the व्याप्ति can neither be asserted nor denied and therefore remains in doubt. In व्यभिचार there is the certainty that व्याप्ति is invalid while in व्याप्यत्वासिद्धि there is the uncertainty that व्याप्ति is not valid. So the former is stronger and more palpable of the two. In this connection the notes under व्याप्यत्वासिद्ध may be read again, where it has been made out that उपाधि is only an indicator of व्यभिचार.

[56] प्रकरणसमस्तु स एव यस्य साध्यविपरीतसाधकं हेत्वन्तरं विद्यते। यथा शब्दोऽनित्यो नित्यधर्मरहितत्वात्; शब्दो नित्यः अनित्यधर्मरहितत्वादिति। अयमेव सत्प्रतिपक्ष इति चोच्यते।

Translation—The incongruous reason is that which is opposed by *another* reason which proves the existence of the opposite of the proposed *probandum*. For example sound is non-eternal as it is devoid of all qualities of eternal things. This is opposed by 'Sound is eternal because it is devoid of all qualities of eternal things.' This is also called **सत्प्रतिपक्ष** = one having an adversary.

Notes—**प्रकरणसम** is explained by Gautama as **यस्मात् प्रकरणचिन्ता स निर्णयार्थमपदिष्टः प्रकरणसमः** (N-S-1-2-48). **प्रकरण** here means the argument in question and its consideration (**चिन्ता**) raises an expectation (**आकाङ्क्षा**) which requires to be fulfilled by a valid conclusion. But another **हेतु** is put forward which instead of fulfilling its purpose leaves the **प्रकरण** where it was at the beginning. This is a roundabout way of explaining the fallacy. Later authors have therefore adopted a simpler word for it, **सत्प्रतिपक्ष** = one having an adversary, i.e., adverse **हेतु**. The former word emphasises on the inconclusiveness arising from the fallacy, while the latter term aims at the mutually preventive nature of the two opposing reasons. It must be noted that the two opposing reasons should be of equal weight as otherwise the weightier one would prevail over the weaker and then there will be no **सत्प्रतिपक्षता—तुल्यबलयोरेव सत्प्रतिपक्षत्वं, नाऽतुल्ययोरिति नियमः।** In this fallacy the two reasons give rise to two opposing **परामर्श**'s of equal weight, which do not lead to a valid conclusion either way.

[57] पक्षे प्रमाणान्तरावधृतसाध्याभावो हेतुर्बाधितविषयः कालात्ययापदिष्ट इति चोच्यते। यथा अग्निरनुष्णः कृतकत्वात्, जलवत्। अत्र कृतकत्वस्य हेतोस्साध्यमनुष्णत्वम्। तदभावः प्रत्यक्षेणैवावधारितः, स्पार्शनप्रत्यक्षेणोष्णत्वोपलम्भात्।

इति व्याख्यातमनुमानम्।

Translation—A stultified reason occurs when the opposite of the proposed *probandum* is known to exist in the subject by any other (more trust-worthy) means of cognition. It is called **बाधित** as well as **कालात्ययापदिष्ट.** Take for example the syllogism, 'fire is not hot, because it is a product like water'.

Here the *probandum* proposed to be proved by the reason 'being a product' is 'absence of heat'. But its opposite 'presence of heat' in the subject is already ascertained through perception, as heat is experienced through tactile perception.

Thus has been explained inference.

Notes—The term कालात्ययापदिष्ट means a हेतु put forward after the lapse of proper time; i.e. after the negation of the *probandum* has been ascertained by a more trust-worthy proof as shown in the example given. Because the हेतु proposed stultifies the knowledge that the hearer has in the form पक्षः साध्याभाववान्, it is named also बाधित. In सत्प्रतिपक्षत्व, because of the two opposing syllogism, one is always left in doubt as to whether the साध्य or the साध्याभाव exists in the पक्ष. In बाधित one is sure of the existence of the साध्याभाव through other means. Even then it can be argued that there is little justification for बाधित being classified separately. In an example like वह्निरनुष्णः कृतकत्वात् the हेतु is found to exist both in सपक्ष and विपक्ष and it can come under साधारणव्यभिचारिन्. Suppose the हेतु in the above syllogism is changed to जलत्वात्. Still the fallacy बाध exists. But the हेतु does not exist in the पक्ष and it becomes a स्वरूपासिद्ध. Such over-lapping is common in a majority of दुष्टहेतु's and the classification is based on the preventive factors as has been explained earlier (vide notes under para 52). बाध is the direct result of not fulfilling the fourth condition of a सद्धेतु (अबाधितविषयत्वं) mentioned in para 48 and prevents अनुमिति directly irrespective of the हेतु proposed. Secondly in a syllogism like उत्पत्तिकालीनघटो गन्धवान् पृथिवीत्वात्, the व्याप्ति is quite valid and there is no question of the हेतु having any of the other fallacies. It has, however, been established for other reasons that at the moment of origin (उत्पत्तिकालीनक्षणे) all products emerge without any गुण and so there is no smell in the pot at that moment. In such cases no fallacy other than बाध could be noticed.

Before taking leave of हेत्वाभास's it is necessary to understand their difference from the other kinds of defects which Gautama has classified under छल, जाति and निग्रहस्थान (vide N.S.I.-1-1-quoted on p. 4). Keśava Miśra also speaks about these at the end of this book; but we shall refer to them here

itself to bring out their contrast with हेत्वाभास. छल is quibbling or equivocation. If, on seeing a person or thing, someone were to explain 'आकारो ह्रस्वः', and if the hearer responds 'नहि, नहि, आकारो दीर्घः', it is a case of छल, as it is evidently a perverse misinterpretation of the speaker's intention. Such instances occur with double *entendre* words or ambiguous usages where it is possible for the hearer to pervert the speaker's meaning. An example of the latter occurs when the hearer replies इतः श्वा न धावति for the remark श्वेतो धावति. If the speaker were to express himself more clearly as श्वेतोऽश्वो धावति this reply would not be possible. Such instances arise out of imperfect or improper usages and have nothing in common with हेत्वाभास's.

Futile or irrelevant rejoinder is called जाति or जात्युत्तर. One proposes a statement like शब्दोऽनित्यः कृतकत्वात् घटवत्, and if the opponent, instead of trying to examine it for its validity or otherwise, puts up a counter-proposition यद्येवं घटवत् शब्दो न श्रावणोऽपि स्यात्, it becomes जात्युत्तर. This arises by perversely shifting the significance of the example pot. Gautama has enumerated 24 varieties of जाति based on similarity or dissimilarity with the example.

निग्रहस्थान means vulnerable point and arises out of misunderstanding or non-understanding the intention of the speaker. In a proposition like शब्दोऽनित्यः कृतकत्वात the opponent points out the fallacy बाध. If, instead of trying to defend his position, the speaker were to say यद्येवं घटोऽस्तु पक्षः it amounts to the vulnerable point प्रतिज्ञाहानि. Such shifting of one's position amounts to inability to defend one's stand in an argument. The stock example for 'shift of accent' seen in Western books on Logic is an instance of the निग्रहस्थान called अर्थान्तर. If, in the Biblical injunction "Thou shalt not bear false witness '*against*' thy neighbour", the emphasis is stressed on '*against*' it may mean 'Thou shalt therefore bear false witness for thy neighbour'. But if the emphasis is shifted to '*thy neighbour*' it may mean 'Thou shalt bear false witness for others.' Both छल and निग्रहस्थान indicate the inability of the speaker to defend his position in an argument. हेत्वाभास can become a निग्रहस्थान in as much as it points out the defects in the

opponent's arguments and thus causes his defeat. But these three, छल etc, can have no place in the search for the validity or otherwise of a proposition. That is why Gautama mentions हेत्वाभास as a separate category before छल in his first Sūtra and again mentions it while enumerating 22 varieties of निग्रहस्थान—प्रतिज्ञाहानिः, प्रतिज्ञान्तरं......हेत्वाभासाश्च निग्रहस्थानानि; (N. S. V-2-1).

A brief look at fallacies as expounded in Western logic will not be out of place here, in as much as we have referred to their method of syllogistic reasoning under अवयव. Firstly, the difference in the structure of a syllogism in the two systems should be clearly borne in mind. Secondly, the word 'fallacy' in their system denotes defects and errors in all the three terms, major, minor and middle, as also those arising out of the arrangement of the premises, reduction from one mood to another, etc. Thirdly, the multiplicity of moods and figures, the rules for reduction and conversion, the distribution of terms both in quality and quantity, the various theories about predication, and similar things create a good amount of confusion with the result that detection of fallacies is pretty difficult. Fourthly, there is no uniformity or unanimity in the classification and elucidation of fallacies, though they follow, directly or indirectly, the lead given by Aristotle. He divided them as fallacies *in dictione* and fallacies *extra dictionem*; i.e.; fallacies of speech and those outside speech. He included six varieties under the first and seven under the second head. This classification was chiefly aimed at the Sophists of his times, a set of philosophic thinkers who were supposed to be the pioneers of advanced learning and education in Ancient Greece. In fact these fallacies were often named Sophisms by Aristotle himself. Notable writers on Western logic, while expressing their dissatisfaction about Aristotle's classification, treat the subject each in his own way. Mill gives a five-fold classification such as fallacies of (1) simple inspection, (2) observation, (3) generalisation, (4) ratiocination and (5) confusion. Whately divides them firstly into logical and non-logical fallacies and the former again into purely logical and semi-logical ones, thus giving in effect three varieties. Later

authors criticise all these classifications, but have nothing better to offer. Welton thinks "a rigidly scientific classification of fallacies" as just not possible. De Morgan goes to the extreme when he says : "There is no such thing as a classification of the ways in which man may arrive at an error".*

Gautama, who might even be a contemporary of Aristotle, has narrowed down the circle of fallacies in the Nyāya system to a single head हेत्वाभास by making the whole structure of अनुमान hinge round the हेतु. The result is that a fallacy, in whatever part of the syllogism it may occur, can be traced to an imperfect or erroneous use of the हेतु in the व्याप्ति. You have only to state the व्याप्ति in the standard form—यत्र हेतुस्तत्र साध्यः or यद्यत् हेतुमत् तत्तत् साध्यवत्—and then examine the material truth of the statement. It is here that the दृष्टान्त helps and hence its importance. The un-limited resources of the Sanskrit language have enabled the Naiyāyikas to avoid all negative moods and figures. You have only to add the word अभाव or its equivalent affix at the proper place to make the meaning negative and still keep the form positive. This has helped among other things (1) to avoid the difficult process of obversion etc.; (2) to keep all their syllogisms to one single mood Barbara; (3) to ward off fallacies due to distribution or non-distribution of terms and such latent errors as denying the antecedent, affirming the consequent etc.; (4) to narrow down *formal* fallacies to the single instance of 'ambiguous middle'; and (5) to reduce all *material* fallacies to a व्यभिचार or असिद्धि. "That this common feature—viz. vitiating the probative value of a *probans*—is the fundamental basis of Gautama's classification of defective reasons is implicitly conveyed by the significant name of हेत्वाभास used by Gautama.

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* The remarks in this and the next para are meant only to bring out the contrast between the two systems and not with any idea of showing the superiority of one over the other. Both the systems have their merits and defects and still serve well the purpose which the founders of the two systems had in view.

It may be noted here that the same philosophic instinct, that helped the Nyāya theories of inference and syllogism over the formalistic barriers which Western Logic still finds it difficult to surmount, has also made it possible for the Nyāya system to equip itself with a really helpful scheme of defective *probans*, hinging on the concept of हेतु which forms the main ground of syllogistic reasoning." (A Primer of Indian Logic by Prof. S. Kuppuswāmī Śāstrī, pp. 240-41).

Let us now examine a few examples of the more important fallacies in the Western system.

I. First and foremost is the 'undistributed middle' which arises from a breach of one of the most important of their general rules; viz. the middle term should be distributed at least once in either of the premises. The middle term, being the connecting link between the other two, will not join up the major term with the minor if it is not distributed at least once.* In other words the हेतु will not become साध्यव्याप्य—when it will become व्यभिचरित—and in many cases it will become साध्याभावव्याप्य—when it turns as विरुद्ध.

Ex. (1) All virtuous men are happy; (Major premise, A)
All rich men are happy; (Minor " A)
∴ All rich men are virtuous. (Conclusion, A)

This is Barbara mood of first figure. Both the premises being A propositions do not distribute the predicate 'are happy', which is the middle term here. So the conclusion is wrong. Such mistakes are quite common even in ordinary talk due to a tendency to regard the premises as mathematical equations. In statements like 'the rich are happy' or 'the poor are not happy', the predicate does not *equal* its subject, but is only affirmed or denied of the subject. 'Happy men' include various types of men, the virtuous, the rich, the poor, the care-free, the contented etc. The two premises state two such types of

* A term is said to be distributed when the whole of it is covered by the predication; and if only a part of it is covered by the predication it is said to be undistributed. The reader is advised to keep any elementary text-book on Western logic (deductive) for reference when going through these portions.

men without any connection between them. A and B may both be happy but that fact does not warrant the conclusion that A is B, as it is well known that many rich men are not virtuous and many virtuous men are not rich.

Translated and re-arranged in the Nyāya form this syllogism becomes,

धनिकाः धर्मतत्पराः; (प्रतिज्ञा = Conclusion)
सुखित्वात्; (हेतु = Minor premise)
ये ये धर्मतत्परास्ते ते सुखिनः (उदाहरण = Major premise)*

In the व्याप्ति we at once see that the साध्य and हेतु have interchanged places with the result that the हेतु is stated to be साध्यव्यापक. So it becomes साधारण or सोपाधिक as there are causes other than happiness for virtuousness.

Ex. (2) All that glitters is not gold; (O)
Glass glitters; (A)
∴ Glass is not Gold. (O)

Here the हेतु, 'that which glitters' is undistributed in both the premises and so the conclusion is not correct.

Translated it becomes,

काचो न कनकम्,
तेजस्वित्वात्;
यत्र तेजस्वित्वं तत्र कनकत्वाभावः,

The हेतु is easily seen to be साधारण as तेजस्वित्व exists in सपक्ष (not-gold-things) as well as in विपक्ष (gold).

Let us take an example each of सोपाधिक and साधारण from the Nyāya system and turn it into the Western system.

Ex. (3) सोपाधिक—यागीया हिंसा अधर्मसाधनं;
हिंसात्वात्;
यत्र हिंसात्वं तत्राऽधर्मसाधनत्वम्.

* In this and in the examples below a corroborative instance such as यथा चैत्रः and the other two members उपनय and निगमन can easily be supplied by the reader.

In English form—Killing causes sin;
Sacrifice involves killing;
∴ Sacrifice causes sin.

If in the above, the subject means 'all kinds of killing' as is the intention, it leads to the defect of 'undue assumption', as an exception is made in the case of killing in sacrifice. But if it is taken to mean 'some kind of killing' as is not warranted, this becomes a case of 'undistributed middle'; and then the conclusion should be particular.

Ex. (4) साधारण—पर्वतो वह्निमान् प्रमेयत्वात्; यत्र प्रमेयत्वम् तत्र वह्निमत्वम्, becomes in English
All cognisable things are fiery:
The hill is cognisable;
∴ The hill is fiery.

Here the major premise is wrong as it is a case of 'undue assumption'.

II. Next in order of importance is the 'illicit process' which may be of the major or of the minor term. This happens when the second general rule—that no term undistributed in its premise may be distributed in the conclusion—is violated.

Ex. (5) Illicit major—All cows are quadrupeds;
Dogs are not cows;
∴ Dogs are not quadrupeds.

Here the major term 'quadrupeds' is undistributed in the major premise, but is distributed in the conclusion, which therefore becomes wrong. In Sanskrit it would read श्वानश्चतुष्पाद्भिन्नाः गोभिन्नत्वात्, यत्र गोत्वं तत्र चतुष्पात्वम्. Here the व्याप्ति ought to have been stated as यत्र गोभिन्नत्वं तत्र चतुष्पाद्भिन्नत्वं which is a व्यतिरेकिन्. The अन्वय form of this should read as यत्र चतुष्पात्वं तत्र गोत्वं and not as stated in the syllogism. Either way the हेतु is easily seen to be व्यभिचरित.

Ex. (6) Illicit minor—No man is perfect;
All men are animals;
∴ No animal is perfect.

Here the minor term 'animal' is undistributed in the minor premise, but distributed in the conclusion. So the conclusion,

though a factual statement, does not follow from the premises. In the Nyāya form it would read प्राणिमात्रं सर्वगुणहीनं प्राणित्वात्; यत्र प्राणित्वं तत्र सर्वगुणहीनत्वम्. The हेतु is one which exists only in the पक्ष and as such becomes असाधारण.

Ex. (7) Taking an example of असाधारण, शब्दो नित्यः शब्दत्वात् and expressing it in English it would read :–
All things that have soundness are eternal;
Sound is a thing which has soundness;
∴ Sound is eternal.

Here the syllogism is technically correct in form. But the fault lies in the meaning. The minor premise does not predicate anything and amounts to saying 'Sound is sound'. Thus the major premise and the conclusion become identical and this is no proper syllogism. Also sound becomes distributed in the conclusion without being distributed in its premise.

III. We shall illustrate in brief a few examples of the third important fallacy, 'the ambiguous middle', under which a variety of defects will be found included in the text-books.

	Sanskrit form
Ex. (8) Light is pleasing; His loss is light; ∴ His loss is pleasing.	तस्य धननाशः सन्तोषकरः, लघुत्वात् यत्र लघुत्वं तत्र सन्तोषकरत्वम्.

Here 'light' is used in two senses in the two premises and it is a 'fallacy of equivocation'. In Nyāya it will be a case of छल and not हेत्वाभास. In the Sanskrit form the ambiguity has been removed, but still the हेतु is साधारण.

Ex. (9) Begging is punishable; Owners of charitable institutions beg; ∴ They are punishable.	मठाधिपतयो दण्डनार्हाः, याचकत्वात्; यत्र याचकत्वं तत्र दण्डनार्हत्वम्.

Here 'begging' denotes two different types of asking in the two premises, and this is an instance of the 'fallacy of accident'. In Nyāya it is, at best जात्युत्तर. But in the Sanskrit form of the syllogism the हेतु is सोपाधिक, न्यायोल्लङ्घन being the उपाधि.

Ex. (10) The angles of a triangle are two right angles;
A is an angle of a triangle;
∴ A is two right angles.

Sanskrit form—अयं कोणः समकोणयुग्मतुल्यः, त्रिकोणस्य कोणत्वात्; यत्र त्रिकोणस्य कोणत्वं तत्र समकोणयुग्मतुल्यत्वम्.

Here the middle term, 'angles of a triangle', is taken collectively in the major premise and distributively in the minor premise. The word 'together' after triangle in the major premise would no doubt make the statement correct; but then the minor premise and the conclusion do not arise. This is called a 'fallacy of division'. In the Sanskrit form, the हेतु is बाधित as we already know that one angle of a triangle is always less than two right angles.

Ex. (11) Five and six are odd and even; Five and six are eleven; ∴ Eleven is odd and even.	एकादशमोजं युग्मं च, एकादशत्वात्; यत्रैकादशत्वं तत्रौजयुग्मत्वम्.

In English it is called the 'fallacy of composition' and appears to be a riddle. Here also the middle term is used distributively and collectively in the two premises. In both systems it could be an instance of जात्युत्तर.

Ex. (12) God created man; Man created sin; ∴ God created sin.	ईश्वरोऽधर्मकृत्, मनुष्यकारित्वात्; यत्र मनुष्यकारित्वं तत्र अधर्मकृत्वम्.

Here there are actually four terms; God, Creator of man, man, and creator of sin and a syllogism can have only three terms. This is called the 'fallacy of four terms' or the 'logical quadruped'. In the Sanskrit version the portion 'God created man' is missing, as here also there can be only three terms. As it is all the five हेत्वाभास's can be traced in it.

The above examples will show that (1) there is no correspondence between the fallacies in the two systems; (2) the fallacies in the Western system vary according to the mode

of reduction; (3) it is easier to convert the Nyāya syllogism to English than the other way as the former is more strict and circumscribed; (4) a majority of the so-called 'material' fallacies in the Western system centre round व्यभिचार, the most common fallacy in the Nyāya system; and (5) it is easier to point out the fallacy in the Nyāya system by expressing the व्याप्ति in the standard form.

The whole of अनुमान has been summarised by विश्वनाथ in his कारिकावली (V. 66–78) in 12 small easy verses so well that it deserves quoting in full and remembering by every interested student.

व्यापारस्तु परामर्शः करणं व्याप्तिधीर्भवेत् ।
अनुमायां ज्ञायमानं लिङ्गं तु करणं न हि ।
अनागतादिलिङ्गेन न स्यादनुमितिस्तदा ॥
व्याप्यस्य पक्षवृत्तित्वधीः परामर्श उच्यते ।
व्याप्तिस्साध्यवदन्यस्मिन्नसम्बन्ध उदाहृतः ॥
अथवा हेतुमन्निष्ठविरहाप्रतियोगिना ।
साध्येन हेतोरैकाधिकरण्यं व्याप्तिरुच्यते ॥
सिषाधयिषया शून्या सिद्धिर्यत्र न विद्यते ।
स पक्षस्तत्र वृत्तित्वज्ञानादनुमितिर्भवेत् ॥
अनैकान्तो विरुद्धश्चाप्यसिद्धः प्रतिपक्षितः ।
कालात्ययापदिष्टश्च हेत्वाभासास्तु पञ्चधा ॥
आद्यस्साधारणस्तु स्यादसाधारणकोऽपरः ।
तथैवानुपसंहारी त्रिधाऽनैकान्तिको भवेत् ॥
यस्सपक्षे विपक्षे च भवेत्साधारणस्तु सः ।
यस्तूभयस्माद्व्यावृत्तः स चासाधारणो मतः ॥
तथैवाऽनुपसंहारी केवलान्वयिपक्षकः ।
यस्साध्यवति नैवास्ति स विरुद्ध उदाहृतः ॥
आश्रयासिद्धिराद्या स्यात् स्वरूपासिद्धिरप्यथ ।
व्याप्यत्वासिद्धिरपरा स्यादसिद्धिरतस्त्रिधा ॥
पक्षासिद्धिर्यत्र पक्षो भवेन्मणिमयो गिरिः ।
ह्रदो द्रव्यं धूमवत्वादत्रासिद्धिरथापरा ॥
व्याप्यत्वासिद्धिरपरा नीलधूमादिके भवेत् ।
विरुद्धयोः परामर्शे हेत्वोस्सत्प्रतिपक्षता ॥
साध्यशून्यो यत्र पक्षस्त्वसौ बाध उदाहृतः ।
उत्पत्तिकालीनघटे गन्धादिर्यत्र साध्यते ॥

(End of Anumāna)

(5) उपमानम्

COMPARISON

[58] अतिदेशवाक्यार्थस्मरणसहकृतं गोसादृश्यविशिष्टपिण्डज्ञानमुपमानम्। यथा गवयमजानन्नपि नागरिको 'यथा गौस्तथा गवय' इति वाक्यं कुतश्चिदारण्यकात् पुरुषाच्छ्रुत्वा वनं गतो वाक्यार्थं स्मरन् यदा गोसादृश्यविशिष्टं पिण्डं पश्यति, तदा तद्वाक्यार्थस्मरणसहकृतं गोसादृश्यविशिष्टपिण्डज्ञानमुपमानम्। उपमितिकरणत्वात्। गोसादृश्यविशिष्टपिण्डज्ञानानन्तरम् 'असौ गवयशब्दवाच्यः पिण्ड' इति संज्ञासंज्ञिसम्बन्धप्रतीतिरुपमितिः। सैव फलम्। इदन्तु प्रत्यक्षानुमानाऽसाध्यप्रमासाधकत्वात् प्रमाणान्तरमुपमानमस्ति।

(इति व्याख्यातमुपमानम्।)

Translation—Knowledge through comparison is that which is gained by the similarity of one thing to a known thing like a cow, when this similarity is aided by the recollection of an assertion made by some knowing person to that effect. For example an urban man who does not know what the word **गवय** denotes, hears from a forester that '**गवय** (=*Gayal*=*Bos Gaveas*) is an animal similar to a cow'. Afterwards he happens to go to a forest where he sees some animal similar to the cow. If at that time he recollects the words of the forester, he gains the knowledge that the animal in front of him is what is called **गवय**, which is similar to the cow. This knowledge is **उपमान** and it is the instrument of the cognition **उपमिति**. After knowing that the animal in front is similar to the cow, the cognition that this animal is to be called **गवय**, is **उपमिति**; which is the grasp of the relation between the word **गवय** and the thing denoted by it (or in other words the denotative significance of the word **गवय—संज्ञासंज्ञिसम्बन्धज्ञान**). This is the result (of **उपमान**) and as it is not ascertained by the other **प्रमाण**'s, perception and inference, **उपमान** is a separate **प्रमाण**.

(Thus comparision has been explained.)

Notes—**उपमान** is the knowledge that the thing (or animal) in front has similarity to the cow. This similarity was made known by a third person as the forester. On seeing the similarity (**सादृश्यज्ञान**), the words of the third person come

to mind (अतिदेशवाक्यार्थस्मरण). The former is the करण and the latter the mediate activity (व्यापार). This is the view of the moderners. The ancients would say that अतिदेशवाक्यार्थज्ञान is the करण and सादृश्यज्ञान is the सहकारि or व्यापार. Keśava Miśra prefers the former view, but he does not go all the way with the moderners as he distinctly says that उपमिति is of the form असौ (पिण्डः) गवयपदवाच्यः—The moderners say that उपमिति is of the form गवयो गवयपदवाच्यः . The difference between the two is that in the former case only the particular animal in front is denoted by the word गवय; while with the moderners the whole class of animals, of which the one in front is an individual, is denoted by the word गवय. Either way अतिदेशवाक्यार्थज्ञान and सादृश्यज्ञान are both necessary for उपमिति, which is ascertaining the denotative significance of a word—संज्ञासंज्ञिसम्बन्धज्ञान or शक्तिग्रह (for which vide the next section शब्द).

Just as उपमिति arises out of सादृश्यज्ञान it can arise through a knowledge of dissimilarity (=वैधर्म्यज्ञान), as well as through a knowledge of some uncommon, or peculiar characteristics (= असाधारणधर्मज्ञान). An example of the former kind is उष्ट्रो अश्ववत् न समानपृष्ठह्रस्वगलकायः-a camel does not have a level back and a short neck like a horse; and of the latter खड्गमृगो नासिकोद्गमदेकश्रृङ्गः—a rhinoceros has a single horn protruding from its nose. Viewed in this way उपमान can be of three kinds (vide सिद्धान्तचन्द्रोदय a commentary on T. S. of An. Bh).

The Viśeṣikas, Sāmkhyas and Buddhists do not accept उपमान as a separate प्रमाण, but include it under अनुमान. The Naiyāyika's reply is typical and is summarised by Nīlakaṇṭha as follows—वैशेषिकास्तु पदवाच्यत्वव्याप्यसादृश्यादिपरामर्शात् पदवाच्यत्वस्यानुमितिरेव, अतो नोपमानं प्रमाणान्तरमित्याहुः । तच्चिन्त्यम् । व्याप्तिज्ञानमन्तरेणापि पदवाच्यत्वप्रमितेरनुभवसिद्धत्वात् । The inference by which they include उपमान under inference would be something like अयं पिण्डो गवयपदवाच्यः गोसादृश्यात् । यत्र गोसादृश्यं तत्र गवयपदवाच्यत्वम् । Even if this were valid, experience shows that the denotative import of a word is grasped without the aid of such a व्याप्ति. वात्स्यायन in his comments on N. S. II-1-44-48 points out the practical utility of knowing what certain technical names of medicinal herbs in Āyurveda denote from the directions of an authoritative person or book (i.e. through

उपमान). On the other hand the fact that the knowledge arising out of similarity can only be tentative and not positive, may still stand against its acceptance as a separate प्रमाण. उदयनाचार्य discusses all this in his न्यायकुसुमांजलि and states his conclusion thus :—

सम्बन्धस्य परिच्छेदः संज्ञायाः संज्ञिना सह ।
प्रत्यक्षादेरसाध्यत्वादुपमानफलं विदुः ॥

Our author has also stated the same idea in the last sentence of the text above.

(6) शब्दः

WORD OR VERBAL TESTIMONY

[59] आप्तवाक्यं शब्दः । आप्तस्तु यथार्थभूतस्यार्थस्योऽपदेष्टा । वाक्यन्तु आकांक्षा-योग्यता-सन्निधिमतां पदानां समूहः । अत एव 'गौरश्वः पुरुषो हस्ती' ति पदानि न वाक्यं, परस्पराकाङ्क्षाविरहात् । 'अग्निना सिञ्चेदि' ति न वाक्यं, योग्यताविरहात् । नह्यग्निसेकयोः परस्परान्वययोग्यताऽस्ति । तथाहि । अग्निनेति तृतीयया सेकरूपकार्यं प्रति करणत्वमग्नेः प्रतिपादितम् । न चाग्निः सेके करणीभवितुं योग्यः । कार्यकारणभावलक्षणसम्बन्धेऽग्निसेकयोरयोग्यत्वादग्निना सिञ्चेदिति न वाक्यम् । एवमेकैकशः प्रहरे प्रहरेऽसहोच्चरितानि 'गाम्, आनय' इत्यादि पदानि न वाक्यम् । सत्यामपि परस्पराकाङ्क्षायां सत्यामपि परस्परान्वययोग्यतायां परस्परसान्निध्याभावात् । यानि तु साकाङ्क्षाणि योग्यतावन्ति सन्निहितानि पदानि तान्येव वाक्यम् । यथा 'ज्योतिष्टोमेन स्वर्गकामो यजेते'त्यादि । यथा च 'नदीतीरे पञ्च फलानि सन्ति' इति । यथा च तान्येव 'गामानये'त्यादि पदानि अविलम्बितोच्चरितानि ।

Translation—The utterance of a trust worthy person (आप्त) constitutes verbal testimony. आप्त is one who speaks about a thing as it really is and वाक्य (sentence) is a collection of words which have the three characteristics (at the same time): (1) आकांक्षा = verbal expectancy; (2) योग्यता = congruity and (3) सन्निधि = proximity. For this reason a collection of words like 'cow, horse, man, elephant' is not a sentence as it is wanting in verbal expectancy among them. Similarly 'spray with fire' is not a (meaningful) sentence as the two words

are lacking in congruity. Here 'fire' and 'spraying' are not capable of being construed together, because the instrumental case in अग्निना denotes that fire is the instrument for the act of spraying and fire is not capable of becoming such an instrument in as much as 'fire' and the 'act of spraying' do not join together through cause-effect relation. Therefore the words अग्निना सिञ्चेत् do not constitute a (meaningful) sentence. Similarly if the words गाम् and आनय are uttered one by one with an interval of an hour between them and not together, the two will not become a sentence. Even though there exist आकांक्षा and योग्यता between them the two words lack proximity. Therefore a वाक्य or sentence is only such a collection of words which have all the three characteristics (at the same time), आकांक्षा, योग्यता and सन्निधि; e.g. ज्योतिष्टोमेन स्वर्गकामो यजेत—one desirous of attaining heaven should perform the sacrifice ज्योतिष्टोम; नदीतीरे पञ्च फलानि सन्ति—there are five fruits on the bank of the river—are (correct) sentences. Similarly the words गामानय become a real sentence if they are uttered without (undue) delay between the two.

Notes—In शाब्दप्रमा = cognition from verbal testimony, knowledge of the words (पदज्ञानं) is the करण, recollection of the meaning of the words (पदार्थधीः) is the व्यापार, knowledge of the denotative force of words (शक्तिग्रहः) is an accessory and शाब्दबोध (verbal comprehension) is the result. cf.

पदज्ञानन्तु करणं द्वारं तत्र पदार्थधीः ।
शाब्दबोधः फल तत्र शक्तिधीः सहकारिणी ॥ (कारि. V-81)

Keśava Miśra begins with the definition of the करण as आप्तवाक्य and then goes on with the explanation of the words आप्त and वाक्य. These definitions involving यथार्थवचन (statement of the reality or truth) are significant as they indicate that to the Naiyāyika the test of validity of शाब्दबोध lies not in the authority of the speaker but in the fact of his words being based on truth.

A sentence consists of meaningful words, but these words become meaningful only when they fulfil all the three prerequisites required of them, आकांक्षा, योग्यता and सन्निधि or (आसत्ति).

Though these have not been defined as such the author has given sufficient explanation and examples to make clear what these words stand for. When a word or a set of words is not capable of producing a cogent meaning for want of another word or words there occurs आकाङ्क्षा—पदस्य पदान्तराभावप्रयुक्तान्वयाऽननुभावकत्वमाकाङ्क्षा. When someone utters चन्दनं and then keeps quiet, the hearer expects to know what further is predicated about it—whether sandal is to be brought (आनय), whether it is to be removed (अपनय), whether it is fragrant (सुरभि), or cooling (शीतलं) etc. This expectancy is what is meant here by आकाङ्क्षा. By simply saying गौः, अश्वः, पुरुषः, हस्ती etc. the words do not convey a complete or cogent meaning and the hearer expects to know 'what about these?' If some such words as 'सर्वे धावन्ति' or वनादायान्ति are added this expectancy is calmed and the verbal comprehension (शाब्दबोध) is complete and valid.

The second requisite योग्यता is variously translated as congruity, compatibility, coherence. It occurs when the meanings of two words are not contradictory or incongruous. If one were to say 'sprinkle with fire' the hearer's knowledge that fire is incompatible with the act of sprinkling prevents him from forming शाब्दबोध as he would do if he were told 'sprinkle with water'. Other instances are जलेन दह्यते, मांसं पिबति, मद्यं खादति, पङ्गुर्धावति etc. Such usages may be common in अलङ्कारशास्त्र where the meanings would be quite different, and so they are out of consideration here.

The third requisite सन्निधि also called आसत्ति, is defined as पदानामविलम्बेनोच्चरितत्वं—the fact that the words are uttered without undue interval of time between any two. Such delayed utterances prevent the hearer from connecting together the meanings of the words and thus prevent him from getting a verbal cognition. It is common experience that the meaning of verses arises only after the syntactic order of the words is re-arranged so as to have the proper आसत्ति.

Some authors add a fourth requisite, तात्पर्यज्ञान or knowledge of the intention of the speaker. This is necessary especially with double *entendre* words or where the implied sense has

more importance. An instance of the first type is when someone orders सैन्धवमानय, where the word सैन्धव is capable of the two meanings, salt and horse. Which meaning is intended by the speaker is to be determind by the context in which it is uttered. If the speaker is taking food when he says it, the word means salt, or if he is preparing to go out it would mean horse. Examples of the second type occur when someone exclaims शूरो भवान् ! or सुष्ठूक्तं ! meaning thereby 'you are a coward !' or 'what you said is quite absurd !' according to the context. Those who do not mention तात्पर्यज्ञान as a separate requisite would include it under आकाङ्क्षा or योग्यता. Either way the necessity of accepting it as an accessory for शाब्दबोध cannot be outlooked.

It should be remembered here that it is the knowledge of the existence of these requisites that causes शाब्दबोध and not their mere presence as will be evident from the following example. When somone says simply द्वारं, the hearer nearby immediately closes the door if there is a gust of wind, or opens it if there is a knock, according to the necessity of the occasion. Here the word 'पिधेहि' or 'अपावृणु', though not actually uttered, is understood from the context; and it is the knowledge of the meaning of these words that causes the hearer to have the proper शाब्दबोध and through that the appropriate action.

[60] नन्वत्रापि न पदानि साकांक्षाणि, किन्त्वर्थाः। फलादीनामाधेयानां तीराद्याधाराकाङ्क्षितत्वात् । न च विचार्यमाणेऽर्था अपि साकाङ्क्षाः । आकाङ्क्षाया इच्छात्मकत्वेन चेतनधर्मत्वात् । सत्यम् । अर्थास्तावत् स्वपदश्रोतर्यन्योन्याकाङ्क्षाजनकत्वेन साकाङ्क्षा इत्युच्यन्ते । तद्द्वारेण तत्प्रतिपादकानि पदान्यपि साकाङ्क्षाणीत्युपचर्यन्ते । यद्वा पदान्येवार्थान् प्रतिपाद्य अर्थान्तरविषयाकाङ्क्षाजनकानीत्युपचारात् साकाङ्क्षाणि । एवमर्थाः साकाङ्क्षाः परस्परान्वययोग्याः । तद्द्वारेण पदान्यपि परस्परान्वययोग्यानीत्युच्यन्ते ।

Translation—(An objection). Even here (i.e. in sentences like नदीतीरे पञ्च फलानि सन्ति) it is not the words that have आकाङ्क्षा but it is their meanings; because the fruits as the supported things, call for a substratum which is furnished by the bank.

In fact, if we think a little more deeply, even the meanings cannot be said to have आकाङ्क्षा, as that being a form of desire can exist only in a conscious being. (Answer). True. When a man hears certain words and understands their meanings these latter produce in his mind this आकाङ्क्षा, and so being productive of the आकाङ्क्षा the meanings themselves are said to have आकाङ्क्षा. Through them the words that generate those meanings are said to possess आकाङ्क्षा by implication (उपचार or लक्षणा). Or, the words themselves having denoted their meanings may be said to create in the mind of the hearer the expectancy of one meaning being construed with another by implication. Thus the meanings endowed with आकाङ्क्षा become capable of being construed together. Through these meanings the words themselves (by implication) are said to be capable of being construed properly.

[61] सन्निहितत्वं तु पदानामेकेनैव पुंसाऽविलम्बेनोच्चरितत्वम् । तच्च साक्षादेव पदेषु संभवति, नार्थद्वारा । तेनायमर्थः सम्पन्नः । अर्थप्रतिपादनद्वारा श्रोतुः पदान्तरविषयां अर्थान्तरविषयां वाऽकाङ्क्षां जनयतां प्रतीयमानपरस्परान्वययोग्यार्थप्रतिपादकानां सन्निहितानां पदानां समूहो वाक्यम् ।

Translation—Proximity of words occurs when they are uttered by one and the same person without undue delay in the intervals between two words. This happens directly in the words themselves and not through their meanings. Thus this meaning (i.e. the detailed definition of a sentence) is arrived at. A sentence (वाक्य) is a collection of words which are such that (1) they produce in the mind of the hearer, through the denotation of their meanings, an expectancy regarding the words themselves being interdependent or regarding their meanings being interdependent; (2) they convey meanings that are capable of being construed without incompatibility or contradiction; and (3) they are close enough (to produce the desired meaning without undue delay).

Notes—In para 60 the author discusses how आकाङ्क्षा can be a characteristic of words which are uttered by the *speaker*.

आकाङ्क्षा is a kind of expectancy or desire arising in the mind of the *hearer*. So the objection is how it is stated to exist in the words of another man or in their meanings. The reply is that these words create the expectancy in the mind of the hearer; or better still, the words denote their meanings which in their turn create this expectancy or desire to know what is being said next such that its meaning may join properly with that of the previous word or words. Thus the words or their meanings as the cause of this expectancy is stated by implication—उपचार—to possess the expectancy, just as we say गीतं मधुरम्. Here sweetness is a quality in the hearer's mind or ear, but is transferred to the cause of the feeling, the song. The second requisite योग्यता, it is evident, should exist in the meanings of the words as explained in the previous para. The third सन्निधि should exist in the words themselves as mentioned in para 61. In the final definition of वाक्य the three requisites are shown in their expanded form by the three adjectives qualifying the word पदानाम्. This shows that Keśava Miśra does not want to include तात्पर्यज्ञान as a separate requisite.

[62] पदं च वर्णसमूहः । समूहश्चात्रैकज्ञानविषयीभावः । एवञ्च वर्णानां क्रमवतामाशुतरविनाशित्वेनैकदाऽनेकवर्णानुभवासम्भवात् पूर्वपूर्ववर्णाननुभूयाऽन्त्यवर्णश्रवणकाले पूर्वपूर्ववर्णानुभवजनितसंस्कारसहकृतेनाऽन्त्यवर्णसम्बन्धेन पदव्युत्पादनसमयग्रहानुगृहीतेन श्रोत्रेणैकदैव सदसदनेकवर्णावगाहिनी पदप्रतीतिर्जन्यते । सहकारिदाढ्र्यात्, प्रत्यभिज्ञावत् । प्रत्यभिज्ञाप्रत्यक्षे ह्यतीतापि पूर्वावस्था स्फुरत्येव । ततः पूर्वपूर्वपदानुभवजनितसंस्कारसहकृतेनाऽन्त्यपदविषयेण श्रोत्रेन्द्रियेण पदार्थप्रत्ययानुगृहीतेनाऽनेकपदावगाहिनी वाक्यप्रतीतिः क्रियते ।

Trauslation--A word is a collection of letters; and collection here is such that the letters in it constitute a single conception. When a word is uttered the letters in it appear one by one in a certain order and each letter fades away by the time the next letter is uttered with the result that there is no possibility of any of the previous letters remaining (in the ear) at any one moment (or in other words only one letter remains in the ear at any single moment. But their impressions (संस्कार) are left behind in the mind of the hearer. As soon as the last letter is heard, the auditory organ combines it with

the impressions of all the previous letters and conveys to the mind the idea of the thing denoted by that collection of letters even though all the letters except the last one are not there at that moment. The auditory organ is endowed with this special faculty of piecing together the impressions of the previous letters with that of the last one to create a single conception from the whole. This is because of the efficiency of the accessory causes just as in a case of recognition (प्रत्यभिज्ञा). When recognition occurs, the previous experience though long past, is conveyed at the moment as though it were part of the present time (through the strength of the impression embedded in the mind). The idea of a sentence consisting of a collection of words is also conveyed by the auditory organ in a similar manner after combining the denotation of the last word with the impressions of the several previous words heard in succession.

Notes—The discussion following the definition of 'word' centres round how the several letters in a word are capable of denoting a single entity. Each letter as it is uttered leaves behind an impression of itself in the mind of the hearer and fades away. After the last letter, the mind combines the impressions of the previous letters and this combination makes him recollect the knowledge of the entity denoted by it, which is already latent in the mind of the hearer. When one utters words like **गौ, अश्व, कपाल, नारायण,** etc., only he who has previously understood the denotative significance of such words makes out what the speaker means. This fact of bringing up the latent idea of a **व्यक्ति** by all the letters comprising the word is what is meant here by the phrase **एकज्ञानविषयीभाव.** Other authors express the same idea by defining 'word' as **शक्तं पदं**—a word is that which has a denotative force or **शक्ति.** What this **शक्ति** is will be explained in the notes further on.

The author's main intention in the above discussion appears to be to refute the theory of the grammarians who postulate **स्फोट** as a new thing for generating the idea of a single entity on hearing an orderly set of letters. **स्फोट** is a kind of eternal sound (ध्वनि) which is made explicit by the letters—**स्फोटव्यते व्यज्यते वर्णैरिति वर्णाभिव्यंग्यः स्फोटः**—This in its turn creates the

notion of the entity denoted by that collection of letters--स्फुटत्यर्थोऽस्मादिति स्फोट; अर्थप्रत्यायकः--The grammarians attach so much importance to this स्फोट that they raise it to the status of शब्दब्रह्मन्, which again is equated to परमात्मन् of the Vedāntins. This स्फोट theory of the grammarians however is not accepted by most of the other schools of thought. Our author quotes the instance of प्रत्यभिज्ञा or recollection in support of his argument that the mind processes the impressions of the successive letters and words to a judgement leading to शाब्दबोध. In प्रत्यभिज्ञा one recognises another person (or thing) whom he has met some time ago, as 'this is that Devadatta'—सोऽयं देवदत्तः. Here 'सः' represents the past experience recollected through the impression left behind on seeing him earlier and 'अयं' is the subject of the present visual perception. In ordinary talking or silent reading these mental processes are not noticed because of the quickness with which the mind is able to process the latent impressions. This quickness also accounts for some students understanding the teacher more quickly than others.

[63] तदिदं वाक्यमाप्तपुरुषेण प्रयुक्तं सत् शब्दनामकं प्रमाणम्। फलं त्वस्य वाक्यार्थज्ञानम्। तच्चैतच्छब्दलक्षणं प्रमाणं लोके वेदे च समानम्। लोके त्वयं विशेषः, यः कश्चिदेवाप्तो भवति। न सर्वः। अतः किञ्चिदेव लौकिकं वाक्यं प्रमाणं, यदाप्तवक्तृकम्। वेदे तु परमाप्तश्रीमहेश्वरेण कृतं सर्वमेव वाक्यं प्रमाणम्। सर्वस्यैवाप्तवाक्यत्वात्।

[64] वर्णितानि चत्वारि प्रमाणानि। एतेभ्योऽन्यत्र प्रमाणम्। प्रमाणस्य सतोऽत्रैवान्तर्भावात्।

Translation—(63) When such a sentence (as defined above) is uttered by a trust-worthy person it becomes the प्रमाण called शब्द (or verbal testimony). The result of this प्रमाण is understanding the meaning of a sentence. This शब्दप्रमाण is similar in human utterances as well as in Vedas. There is however this difference. Among men only some and not all are trustworthy and only such utterances that come from these trustworthy people are प्रमाण. The Vedas are all uttered by the greatest आप्त, Iśwara or God, and so every sentence in them is प्रमाण as they all come under the definition आप्तवाक्य.

(64) Thus have been explained the four instruments of valid cognition. Any instrument other than these four is not accepted as प्रमाण (in न्यायशास्त्र). Such others (as are proposed in other Śāstras) come under one or other of these four.

Notes—Para 63 gives a two-fold division of शब्द as वैदिक (Vedic) and लौकिक (human). Under the former are included श्रुति and स्मृति—स्मृति's are digests of rules and regulations and are based on श्रुतिवाक्य's and their authority is limited to that extent. Some would like to include पुराण and इतिहास also under वैदिक; but these have comparatively little authority and are cited only when no higher authority could be put forward. That everything in the Vedas is प्रमाण rests on one's faith. But here is a tough bone of contention between the Naiyāyikas and the Mīmāmsakas. The latter contend that the Vedas are not produced by anyone (अपौरुषेय), but are revelations of God and so eternal. The several sages mentioned along with the Ṛks are only the original 'seers of the hymns'—मन्त्रद्रष्टारः. This is based on their view that sound is eternal, शब्दो नित्यः. The Naiyāyikas on the other hand hold that sound is non-eternal as it is a produced thing and that the Vedas are पौरुषेय; but because of the trancendental wisdom and truth contained in them they could originate only from an Omniscient Being who is none other than God. The Advaitins try to reconcile both these extreme views by saying that the Vedas as handed down to us are अनित्य as they are copies of what existed in previous कल्प's (cycles of ages)—धातायाथापूर्वमकल्पयत्. This in effect means that श्रुति is eternal only in its meaning (अर्थ), not in its form (आनुपूर्वी).

This controversy whether the Vedas are पौरुषेय or अपौरुषेय is not of much consequence. The real difference among the various schools of thought—especially among the Naiyāyikas, the Grammarians and the Mīmāmsakas—lies in their explaining how words uttered by one person denote the desired meaning in the hearer. The Naiyāyikas accept two significative functions for a word called शब्दवृत्ति's. The first and primary

function is शक्ति or अभिधा (or सङ्केत* also sometimes), which can be translated as denotative force. The second is लक्षणा or implication which is always dependent on the former. शक्ति is defined as the relation between the word and its meaning, पदपदार्थयोस्सम्बन्धः. It is an established convention that such and such a word denotes such and such a thing; as गौः, अश्वः, घटः, गिरिः etc. The meanings of these words are handed down to us from time immemorial and because their originators are not known their शक्ति is attributed to God's will—अस्मात् पदादयमर्थो बोद्धव्य इतीश्वरेच्छा पदशक्तिः. Proper names such as चैत्र, मैत्र etc. also have this शक्ति as they denote particular persons (or व्यक्ति's) even though their originators are known. Similar is the case with the innumerable words that are being coined in modern times such as ion, proton, ohm, watt, etc.

The Mīmāmsakas want this शक्ति to be treated as a separate पदार्थ over and above the seven accepted by the वैशेषिक's mainly on the ground that it exists in द्रव्य, गुण and कर्म just like the latter two abide in द्रव्य. The Naiyāyikas argue that this will lead to accepting as many शक्ति's as there are words (as also other द्रव्य's etc.), as well as several शक्ति's for denoting a single व्यक्ति. This cumbrous position (गौरव) could be avoided by accepting शक्ति as a potent relation by which a word revives the meaning imposed on it by divine or human will.

Though all schools accept the above two शब्दवृत्ति's there is great divergence among them regarding the *locus* of शक्ति. What does a word like गो or घट exactly denote ?—Whether it is (a) the animal or thing as such (i.e. व्यक्ति); (b) the common notion underlying all animals or things of that class (i.e. जाति); (c) both together; or (d) something else outside these two ? These are the four important views on the subject and can be stated in Sanskrit as follows :—(1) केवलव्यक्तौ शक्तिः; (2) केवलजातौ शक्तिः; (3) जातिविशिष्टव्यक्तौ शक्तिः; (4) अपोह or अतद्व्यावृत्ति. The first views is that of the modern Naiyāyikas, the second that of the Mīmāmsakas and Grammarians, the

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* सङ्केत means convention—It is indiscriminately used as a synonym for अभिधा and sometimes as its cause (Vide का. प्र. Ch. II.)

third of the older Naiyāyikas and the fourth of the Buddhists. Each of these schools look at the denotative force of a word from a different angle and each would appear to be correct in its own way.

When a sentence like घटमानय is being uttered the intention is that the particular entity jar (घटव्यक्ति) is to be brought and not the जाति (घटत्व) as the capacity for being acted upon (अर्थक्रियाकारित्व) exists only in the व्यक्ति. On observing this one who does not know what a घट denotes previously assumes that that word represents such and such a thing. This assumption is confirmed when next the observer sees the jar being removed. From this it must be admitted that the denotation of the word घट is primarily ascertained in the घटव्यक्ति as otherwise the hearer would not bring or remove the particular object. But then it may be argued that शक्ति is grasped only on one particular व्यक्ति and there are innumerable घटव्यक्ति's in which शक्ति is not grasped. This objection would appear to be valid on the face of it; but is contrary to ordinary experience. When one has ascertained शक्ति on a particular घटव्यक्ति he sizes up the general shape and form of a घट as a कम्बुग्रीवादिमद्वस्तु and through it he conceives the general notion घटत्व underlying all such jars. In fact घटत्व is nothing but कम्बुग्रीवादिमत्व shorn of all the elements that constitute the shape of the object, such as a narrow neck, bulging belly, rounded bottom, etc. घटत्व is the abstract formless notion while कम्बुग्रीवादिमत्व is the same notion in concrete form which is called आकृतिविशेष. It is this आकृतिविशेष which enables one to distinguish it from other things—अतद्व्यावृत्ति. If one has understood what is meant by the word घट, or in other words, if one has grasped the denotative force of घट, it means that he has a definite conception of (1) the घटव्यक्ति; (2) the general notion घटत्व and (3) its peculiar shape—आकृतिविशेष—as a कम्बुग्रीवादिमद्वस्तु. This is what Gautama wants to convey in his न्यायसूत्र II-2-64, 'जात्याकृतिव्यक्तयस्तु पदार्थः'—the meaning of a word rests on all the three, जाति, आकृति and व्यक्ति. विश्वनाथ's comment of this Sūtra is explicit and to the point—"तुशब्देनैकैकमात्रपदार्थत्वव्यवच्छेदः। पदार्थ इत्येकवचनं तु तिसृष्वप्येकैव शक्तिरिति सूचनाय। विभिन्नशक्तौ कदाचित कस्यचिदुपस्थितिः स्यात्। शक्तेस्तुल्यत्वेऽपि व्यक्तेर्विशेष्यत्वात् प्राधान्यम्। तथैव शक्तिग्रहात्।" The three notions जाति,

आकृति and व्यक्ति are but different phases of one and the same thing serving distinct functions in logical explanation and as such inseparable from one another.

Later on, as niceties of logicai dialectics became more and more polished, philosophers of the different Schools considered it more expedient to restrict शक्ति to a single locus on grounds of simplicity (लाघव). The Grammarians emphasize that the denotative force acts primarily on the जाति as that is the life-giving element in any substance, प्राणप्रद् (vide p. 17). The conception of the व्यक्ति is by a later mental process such as अनुमान, अर्थापत्ति, or even by व्यञ्जना (suggestion). As the visual organ is in direct contact only with the व्यक्ति and as अर्थक्रियाकारित्व rests on it, it is only the व्यक्ति that can be brought when some one says घटमानय. The Mīmāmsakas, Advaitins and the Rhetoricians follow the Grammarians in this respect and they all embellish the latter's arguments with their own, even though they do not go hand in hand with the Grammarian regarding his स्फोट theory,

The modern Naiyāyikas argue that it is easier on grounds of लाघव to postulate शक्तिग्रह on the व्यक्ति; mainly on the ground that there would be no difference in meaning between गामानय and गोत्वमानय if शक्ति is accepted on the जाति. In this case गोत्व becomes the शक्यार्थ and its delimiting factor, शक्यतावच्छेदक, will be गोत्वत्व which becomes definitely inexplicable and so leads to गौरव. गोत्व itself is fairly imaginary or abstract, but has to be accepted as a logical necessity and can be equated to सास्नाककुद्लाङ्गूलविषाणित्व. Both sides claim the advantage of लाघव and both have to resort to आक्षेप—presumption or inference—for the notion of व्यक्ति or जाति as the case may be. There are however, even among the more modern Naiyāyikas, some who would prefer to go back to the जातिविशिष्टव्यक्तिवाद् based on the N. S. of Gautama quoted earlier, (cf. शक्तिर्जात्याकृतिविशिष्टव्यक्तावेव विश्राम्यति—S. M. under V. 81).

The Buddhists who want to refute both the Mīmāmasaka and the Naiyāyika at the same time strike a new path and contend that the primary import of words is अपोह or अतद्व्यावृत्ति, i.e. differentia from all things other than that. In other words

the word घट primarily denotes a thing different from non-jar things and the जाति and व्यक्ति are only aids for this differentia. (It should be remembered that they do not accept a जाति as explained by the Naiyāyikas other than this अपोह). This is in consonance with their negative approach to most of the philosophical questions. This idea of differentia may sometimes be necessary to clarify the intention of the speaker; e.g. in a statement like गजोऽयम्, where the speaker wants to emphasize that the animal in front is 'not a buffalo', but an elephant. Even here to say that सङ्केत is not on the 'animal elephant' is evidently contrary to experience; and the notion 'not a buffalo' comes in as an additional factor through implication dictated by the intention of the speaker.

The difference between denotation and connotation on which great emphasis is laid by Western logicians, does not find a place in any of the above views. If we may use these two words in their most general meaning, it may be said in general that the अभिधा (or शक्ति) of the Naiyāyikas comprises both these notions, जाति corresponding to the connoted attribute and व्यक्ति to the denoted object as qualified by the जाति. Viewed from this angle the weight of reason would sway to जातिविशिष्टव्यक्तिशक्ति—vide विश्वनाथ's view quoted in an earlier para.

This शक्ति is of three kinds, योग, रूढि and योगरूढि. योग is अवयवशक्ति or etymology. A यौगिकशब्द is one which conveys only that meaning which its component parts—usually a root with particular affixes—impart to it. Examples are:— अध्येतृ, which is composed of अधि, a preposition, + इ (root = to go) + तृ (a कर्तरिप्रत्यय), means one who learns; अध्यापक (= अधि + इ + णिच् + कर्तरिप्रत्यय) means one who teaches. रूढि is समुदायशक्ति, i.e. where the denotation comes from convention and not from its parts; e.g. घट = a jar and not घटत इति घटः from etymology; गजः = an elephant and not गर्जतीति गजः. योगरूढ words are those which retain the etymological meaning but restricted by convention to a particular thing within that meaning; e.g. पङ्कज = one that grows in or from mud and in that sense it may mean a lotus, lily, frog, weed or any such thing; but it is restricted by convention to a lotus only. मधुकर

(= bee), हस्तिन् (= elephant) etc, are other examples. Ordinarily one should not use such words in their etymological sense as the general maxim is योगाद्रूढिर्बलीयसी. Some authors have a fourth classification also called यौगिकरूढ words; i.e. those which can be interpreted both by अवयवशक्ति or समुदायशक्ति independently. Such are स्वयम्भू = one which emerges by itself as well as God Brahma; उद्भिद् = one which sprouts as well as a tree or shrub. In their case convention has not grown to such an extent as to restrict the sense to one particular thing.

All these different kinds of words require शक्तिग्रह on the अवयव, or the समुदाय or on both as the case may be. This शक्तिग्रह happens in various ways, which are thus enumerated in an ancient verse.

शक्तिग्रहं व्याकरणोपमानकोशाप्तवाक्याद्व्यवहारतश्च ।
वाक्यस्य शेषाद्विवृतेर्वदन्ति सान्निध्यतस्सिद्धपदस्य वृद्धाः ॥

शक्ति is ascertained in the following ways :—

(1) From व्याकरण = Grammar, which gives the meanings of the roots, the root endings and terminations, the various cases, prefixes and suffixes, compounds, and similar things; e.g. गम् = to go; गच्छति = goes (present tense); गन्तृ = one who goes; गति = gait; गम् with आ = to come; अधीतशास्त्र = *one* who has learnt the Śāstras; etc.

(2) From उपमान = the instrument of comparison, vide para 58 of the text and the notes thereunder.

(3) From कोश = dictionary like the अमरकोश which gives synonyms as well as different meanings for the same word.

(4) From आप्तवाक्य = the statement of a trustworthy person as श्लौश्चन्द्रपदवाच्यः

(5) From व्यवहार = common usage of elders; e.g. when one man says गामानय and after the cow has been brought तृणमानय, and after grass also has been brought, another man who observes

these actions, determines the denotation of गो and तृण.

(6) From वाक्यशेष = context, as in the Vedic sentence 'यवमयश्चरुर्भवति' where the denotation of यव is grasped from the words that follow 'यदान्या ओषधयो म्लायन्ते तथैते मोदमानास्तिष्ठन्ति'.

(7) From विवृति = explanation or commentary as लक्षणं नामाऽसाधारणधर्मः यथा गोः सास्नादिमत्त्वम्.

(8) From सिद्धपदस्य सन्निधि = contiguity with known word or words, as in इह सहकारतरौ पिकः कूजति पञ्चमम् the words सहकारतरु and पञ्चम whose meanings are known determine that of पिक as the cuckoo.

To this list Rhetoricians add gestures and signs by hands, eyes, etc. (vide का. प्र. Ch. II).

The second शब्दवृत्ति is लक्षणा = implication. It is defined as शक्यसम्बन्धः which means relation with the denotative sense of the word. This is resorted to when the primary meaning (शक्यार्थ) is unsuitable or incompatible. In a sentence like गंगायां घोषः the primary sense of the word गंगा is the stream or current of water and it is well known that a hut (घोष) cannot stand in a stream. So to make the meaning compatible the word गंगा is taken as signifying its banks contiguous with the stream. The older logicians say that अन्वयानुपपत्ति (= discrepancy in the direct construing) is the condition for resorting to लक्षणा. But this is found to fail in expressions like काकेभ्यो दधि रक्ष्यताम् where there is no discrepancy in अन्वय. The intention of the speaker of such a sentence is clearly to protect curds from 'all birds that eat it away' and not merely from crows alone. So the later Naiyāyikas stipulate तात्पर्यानुपपत्ति (= discrepancy in the intention of the speaker) as the necessary condition for resorting to लक्षणा.

This लक्षणा is also of three kinds—जहत्स्वार्था, अजहत्स्वार्था and जहदजहत्स्वार्था. In जहत्स्वार्था the primary sense (स्वार्थ = शक्यार्थ)

gives place to another meaning (connected with the शक्यार्थ) as in गंगायां घोषः or in मञ्चाः क्रोशन्ति. In the latter example the शक्यार्थ of मञ्च (= a cot) is given up as it is not capable of crying and the word is taken to imply the children lying in those cots. अजहत्स्वार्थलक्षणा is resorted to when a word while retaining its शक्यार्थ, implies something more than that, but connected to it in some form; e.g. काकेभ्यो दधि रक्ष्यताम् or छत्रिणो यान्ति. In the latter case those who hold umbrellas and those who do not are both implied by the word छत्रिन् as they all go in a crowd. जहदजहत्स्वार्थलक्षणा happens in cases where some part of the शक्यार्थ is retained and the other part is discarded (जहत् = discarding and अजहत् = retaining). Examples of this type are सोऽयं चैत्रः, तत्त्वमसि, etc. In the former the pronoun सः denotes the man who was seen in the past time and अयं denotes the man in front at the present time. To maintain the identity of the two the adjectival position 'seen in the past time' is discarded and the substantive 'man' alone is retained. Similarly in the second example तत् denotes निर्गुणब्रह्मन् and त्वं the सगुणजीव. To identify between the two these words give up their attributes निर्गुण and सगुण as they are opposed to each other. Then we get the intended शाब्दबोध, जीवो ब्रह्माभिन्नः.

These sub-divisions are summed up in the following table as an aid to memory. The examples are enclosed in brackets under each.

- शब्दवृत्ति
  - शक्ति or अभिधा
    - योग (सुखी, पाचक, etc.)
    - रूढि (घट, वह्नि, etc.)
    - योगरूढि (पङ्कज, द्विरेफ, etc.)
  - लक्षणा
    - जहत्स्वार्था (मञ्चाः क्रोशन्ति)
    - अजहत्स्वार्था (छत्रिणो यान्ति)
    - जहदजहत्स्वार्था (तत्त्वमसि)

The Grammarians and following them the Rhetoricians accept a third शब्दवृत्ति called व्यञ्जना or suggestion. This has mainly two varieties; (1) शाब्दी = that arising directly from the word itself; and (2) आर्थी = that arising from the meaning. The former occurs in such sentences like गुरुर्बालः. The purpose of saying in an implied manner is to suggest the intelligence etc. of the teacher in the pupil, which will not be so emphatically brought out if it were to be expressed in a direct manner like गुरुतुल्यधीर्बालः. आर्थी व्यञ्जना occurs when one exclaims शूरो भवान्! on seeing him running away. Here the suggestion is that he is a great coward—just the opposite of the word शूर. Another instance is ममापि जन्म तत्रैव भूयाद्यत्र गतो भवान्। Here the suggested sense is 'after your departure I shall not live' and shows the intensity of grief of the speaker. These schools argue that such suggested meanings cannot come through अभिधा or लक्षणा and so a third function (व्यञ्जना) has to be accepted to account for them. The Naiyāyikas (as also the other schools who not accept व्यञ्जना as a third शब्दवृत्ति) argue that the suggested sense comes through a mental process of inference after knowing the शक्यार्थ or लक्ष्यार्थ as the case may be.

वाक्यार्थज्ञान or शाब्दबोध is the purpose or result (फल) of शब्दप्रमाण and its essential features are briefly described below. Any sentence or proposition, as all knows, consists mainly of two parts, the subject or the substantive part called उद्देश्य about which something is predicated, and the predicative part called विधेय. According to the Naiyāyikas the meaning of the substantive in the nominative case, प्रथमान्तार्थ, is the principal concept, मुख्यविशेष्य, to which the meanings of all other words join up directly or indirectly. There is however an additional element conveyed by the sentence as a whole over and above the concepts of the different words. This is the intended relation of the various individual concepts, पदार्थसंसर्ग, which is brought forth not by the significative force of the words, but by the syntactic juxtaposition of the various words, technically termed as संसर्गमर्यादा. A sentence like चैत्रः पद्भ्यां ग्रामं गच्छति would give rise to a शाब्दबोध like पादकरणक-ग्रामकर्मक-वर्तमानकालीनगमनाभिन्न-कृतिमान् चैत्रः in its simplest form. This is called कर्तृमुख्यविशेष्यबोध; where the action denoted by the verb

qualified by all its adjuncts rests on the principal concept, the subject, and this is the distinctive feature of their शाब्दबोध.

The Grammarians whose rules are the final authority for the correctness of a word and its syntactic usage in combination with other words in a sentence, do not agree to the above view of the Naiyāyikas. They hold that in शाब्दबोध the action denoted by the verb is the principal concept and the meanings of all other words includiug the subject are sub-ordinate to it. This is called आख्यातमुख्यविशेष्यबोध. The above sentence would according to them, give rise to a judgment like पादकरणक-ग्राम-कर्मक-चैत्रकर्तृक-वर्तमानकालिकगमनाभिन्नकृतिः. The Mīmāmsakas follow the Grammarians in general with this difference, viz. that the आख्यात or verb ending connotes an additional element besides कृति which they name भावना, "*will-to-do*". There is wide difference between the Bhāṭṭas and the Prābhākaras, the two chief rival schools among them in the exposition of शाब्दबोध centering round this भावना. These details need not detain us for our present purpose. What is to be noted is the fundamental difference between the Naiyāyikas and the other schools, whether the principal concept in a verbal judgement is the subject or the predicate. "If from the stand-point of logical analysis the subject is the central concept of a judgement the meaning of the root of the finite verb may be regarded as its central concept from the stand-point of linguistic analysis; or the '*will-to-do*' (भावना), denoted by the ending of the finite verb, may be viewed as its central concept from the stand-point of Mīmāṃsā legalism." [A Primer of Indian Logic by Prof : S. K. Śāstry. p. 259].

The purpose of reiterating in para 64 that only four प्रमाण's are recognised by the Naiyāyikas is to refute the two extra प्रमाण's advocated by the Mīmāmasakas and the Advaitins. In this connection the number of प्रमाण's accepted by the different schools of Indian philosophy is noteworthy in as much as it is an index, in general to the standard and level of epistemological skill attained by each school and may serve in many cases as a clue to their mutual priority and indebtedness. The चार्वाक who may be considered the staunch Indian materialist

accepts प्रत्यक्ष as the only प्रमाण and does not give credence to any other. The वैशेषिक, बौद्ध and जैन have two, प्रत्यक्ष and अनुमान. The सांख्य, योग and विशिष्टाद्वैत schools accept three adding शब्द to the above two. The नैयायिक has four with उपमान (as described here). The प्राभाकरमीमांसक adds yet another, अर्थापत्ति (vide para 65) to the above four. The भाट्टमीमांसक and the अद्वैतिन् have six प्रमाण's adding अभाव or अनुपलब्धि to the above five. The पौराणिक and तान्त्रिक sometimes reckon संभव, ऐतिह्य and चेष्टा also. संभव occurs in sayings like 'fifty is included in hundred'. ऐतिह्य depends on belief in such myths as 'there is a ghost in this tree'. चेष्टा occurs when some-one raises two fingers to indicate the number two. These last three rest on very shaky grounds and so our author does not consider it necessary or fit to refute them. The real controversy thus centres round अर्थापत्ति and अनुपलब्धि. The मीमांसक is as stubborn and vehement in defending their separate existence as the नैयायिक is in repudiating their independence and including them in अनुमान and प्रत्यक्ष respectively.

(7) अर्थापत्तिः

[65] नन्वर्थापत्तिः पृथक्प्रमाणमस्ति। अनुपपद्यमानार्थदर्शनात् तदुपपादकीभूतार्थान्तरकल्पनमर्थापत्तिः। तथाहि। 'पीनो देवदत्तो दिवा न भुङ्क्ते' इते दृष्टे श्रुते वा रात्रिभोजनं कल्प्यते। दिवाऽभुञ्जानस्य पीनत्वं रात्रिभोजनमन्तरेण नोपपद्यत इति। अतः पीनत्वान्यथानुपपत्तिप्रसूताऽर्थापत्तिरेव रात्रिभोजने प्रमाणम्। तच्च प्रत्यक्षादिभ्यो भिन्नम्। रात्रिभोजनस्य प्रत्यक्षाद्यविषयत्वात्। नैतत्। रात्रिभोजनस्याऽनुमानविषयत्वात्। तथाहि। अयं देवदत्तो रात्रौ भुंक्ते, दिवाऽभुंजानत्वे सति पीनत्वात्। यस्तु रात्रौ न भुंक्ते नासौ दिवाऽभुंजानत्वे सति पीनः, यथा दिवा रात्रावभुंजानो न पीनः। न चायं तथा। तस्मान्न तथा। इति केवलव्यतिरेकानुमानेनैव रात्रिभोजनस्य प्रतीयमानत्वात् किमर्थमर्थापत्तिः कल्पनीया।

Translation—(objection). There is another independent instrument of cognition called अर्थापत्ति (= presumption). When one finds that a certain fact is inconsistent on the face of it

and when he presumes some other fact to remove or explain that inconsistency, such a presumption is what is called अर्थापत्ति. For example, when one hears or sees that Devadatta is fat without eating by day he assumes that D must be eating by night, because his fatness is not consistent with his not-eating by day, (and it is consistent if it is presumed that he eats by night). This presumption based on the inconsistency regarding fatness constitutes the instrument for cognising the fact of D's eating by night. This is distinct from प्रत्यक्ष and other प्रमाण's, because the fact of eating by night cannot be ascertained by the other प्रमाण's.

(**Answer**). This is not so as the fact of eating by night is the object of (i.e. is arrived at by) inference. The syllogism is as follows :—

1. This Devadatta eats by night.
2. Because he is fat and yet does not eat by day.
3. He who does not eat by night cannot be fat and at the same time be not-eating by day, just like another one who does not eat by day or night is not fat.
4. He is not such, i.e., D is not not-fat and yet does not eat by day.
5. Therefore he is not such, i.e. D is not non-eating by night, i.e. he is eating by night.

When by means of this negative inference one can ascertain the fact of eating by night where is the necessity for stipulating अर्थापत्ति as a separate instrument of cognition ?

Notes—The word अर्थापत्ति is used both for the प्रमाण and the प्रमा arising from it just like प्रत्यक्ष. When it means प्रमाण it is derived as अर्थस्य आपत्तिः = प्रतिपत्तिः यस्मात् सा, when it is called उपपाद्यज्ञान = that which has to be explained or accounted for. When it means प्रमा it is derived as अर्थस्य आपत्तिः = कल्पना, when it becomes उपपादकज्ञान = that which explains or accounts for the inconsistency in the former. Thus the knowledge of a fact which is not accountable except by presuming another fact is the instrument and the knowledge so presumed is the resultant cognition. The fact that D is fat without eating by day is what has to be accounted for (उपपाद्यज्ञान). This can ordinari-

ly be explained only by presuming that he eats by night (उपपादकज्ञान). Examples of this type are quite common. A met B in Madras in the morning and then flew to Delhi. B did not travel with him but A meets him again in Delhi the same evening. A has then to *presume* that B must have travelled by another flight the same day as otherwise his presence in Delhi the same evening could not be accounted for.

In page 86 it has been mentioned that the Mīmāṁsakas and Advaitins do not accept व्यतिरेकानुमान but include all such अनुमान under a separate प्रमाण (अर्थापत्ति). The Bhāṭṭa Mīmāṁsakas explain that अर्थापत्ति consists in removing a conflict between two valid cognitions, one of which is general, साधारण, and the other specific, असाधारण, which leads to the conflict or inconsistency in the former. This fact necessitates the presumption of a third knowledge which removes this conflict. In the stock example D is known to be fat, साधारणज्ञान. He is also found to be not eating by day, असाधारणज्ञान, which raises the question, 'How then can he be fat ?'. This conflict between the general and specific knowledges is not of an irreconcilable nature as between two contradictories; but only partial as between a general rule and exception; and this is found to be easily accounted for by *presuming* the third fact of his eating by night. Without this presumptive knowledge the validity of one of the previous cognitions, general or specific, becomes doubtful. So the Bhāṭṭas argue that the inconsistency between the general and specific cognitions directly leads to the presumptive cognition (अर्थापत्ति). It is here that the other school of Mīmāṁasakas, the Prābhākaras, differ from the Bhāṭṭas. They contend that it is not the inconsistency between the general and specific cognitions that leads to अर्थापत्ति; but it is the *doubt* of one of them becoming invalid that leads to it. A closer look at the Bhāṭṭa view would reveal that their exposition is nothing but an elaboration of the व्यतिरेकानुमान of the Naiyāyikas in substance and as such it would be difficult to extricate अर्थापत्ति from the clutches of such an inference. While the Prābhākara view may somehow try to redeem it from being engulfed by व्यतिरेकानुमान, its weak point is that it exalts *doubt* to the status of a

प्रमाण as mentioned above. The Prābhākaras would welcome the objection as a compliment as they hold that all experience is valid (अनुभूतिः प्रमा). But both the Bhāṭṭas and the Naiyāyikas do not go hand in hand with the Prābhākaras and so the three-cornered controversy goes on for ever.

The real difference is between the Bhāṭṭas who want अर्थापत्ति to be treated as a distinct प्रमाण and the Naiyāyikas who include it under inference of the केवलव्यतिरेकि type; and each side claims the advantage of लाघव over the other. The Mīmāmasakas do not admit व्यतिरेकानुमान, and so for them it is simpler and easier to explain cognitions like D's eating by night by stipulating a distinct अर्थापत्ति. Moreover they argue that what the Naiyāyikas call व्यतिरेकानुमान is no inference at all as in all such cases one has to pass through a state of अन्वय-व्याप्ति before arriving at the resultant cognition which is always positive. They also hold that the after-thought (अनुव्यवसाय) that occurs in one's mind after presumptive cognition is of the type 'I presume' and not 'I infer' — अन्यथानुपपत्त्या कल्पयामि, न तु अनुमिनोमि. The Naiyāyikas counter by saying that this presumptive knowledge is only a foreshadowing of the imagination of what really results from a process of inferenee through negative concomitance, and in as much as व्यतिरेकानुमान has to be accepted for other reasons अर्थापत्ति can and does come under that heading and need not be raised to a distinct प्रमाण, which would certainly involve गौरव. The real objection against accepting व्यतिरेकानुमान lies in the fact that a negative व्याप्ति leads to a positive conclusion, which may be contrary to experience. The weak point in the Bhātta view is that, if their arguments are stretched a little further, the entire अनुमानप्रमाण is in peril of being swallowed by अर्थापत्ति—a position which none of the schools acquiesces in. The Bhāṭṭas appear to be aware of this fitfall and try to escape from it by saying that the universal व्याप्ति of all fires and all smokes through a *few observed* cases and *many unobserved* one's cannot be accounted for by any प्रमाण other than अनुमान. This is evidently an afterthought and does not convince any logician. Chennu Bhāṭṭa in his commentary quotes a verse which gives a general maxim aptly applicable to cases like this :—यत्रोऽभयोस्समो दोषः

परिहारोऽपि वा समः । नैकः पर्यनुयोक्तव्यस्तादृगर्थविचारणे ॥* This means that when the objection and the rejoinder are similar on both sides, either side should *not* be questioned 'why ?' while examining such a topic. It is perhaps for this reason that he does not enter into any arguments, but has simply stated the position of the two schools, unlike in the case of अभाव which follows immediately below.

The Bhāṭṭas recognise two kinds of अर्थापत्ति, श्रुतार्थापत्ति and दृष्टार्थापत्ति according as the उपपाद्यज्ञान comes through verbal testimony or by perception. To include both varieties under अनुमान the author uses the phrase इति दृष्टे श्रुते वा in the opening part of the objection. In the answer portion he has given the syllogism complete with all the five members so that there may be no doubt about the merging of अर्थापत्ति with अनुमान.

Next the author takes up the refutation of the other प्रमाण, अभाव or अनुपलब्धि.

(8) अभावप्रमाणम्

[66] नन्वभावाख्यमपि पृथक्प्रमाणमस्ति । तच्चाभावग्रहणायाङ्गीकार्यम् । तथाहि । घटाद्यनुपलब्ध्या घटाद्यभावो निश्चीयते । अनुपलब्धिश्चोपलब्धेरभावः । इत्यभावप्रमाणेन घटाद्यभावो गृह्यते । नैतत् । यद्यत्र घटोऽभविष्यत् तर्हि भूतलमिवाद्रक्ष्यदित्यादितर्कसहकारिणा अनुपलम्भसनाथेन प्रत्यक्षेणैवाभावग्रहणात् ।

Translation—(objection). There is another distinct प्रमाण named अभाव = negation and it has to be accepted for the cognition of 'non-existence' (of things). For instance, the absence of jar etc. is cognised by अनुपलब्धि (non-apprehension) of jar etc. Non-apprehension is only the negation of apprehension and so the non-existence of jar etc. is cognized by the instrument अभाव or अनुपलब्धि.

(**Answer**). This is not so; because non-existence is grasped by sense-perception itself which is aided by a ratiocination (तर्क) like 'had the jar existed here it would have been

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* Ch. : Bh. : quotes this verse on p 167 (Bombay Edition) under स्फोटवाद. But it applies here also.

perceived just like the ground', in combination with its non-apprehension.

[67] नन्विन्द्रियाणि सम्बद्धार्थग्राहकाणि । तथाहि । इन्द्रियाणि वस्तु प्राप्य प्रकाशकारीणि, ज्ञानकारणत्वात्, आलोकवत् । यद्वा चक्षुःश्रोत्रे वस्तु प्राप्य प्रकाशकारिणी, बहिरिन्द्रियत्वात्, त्वगादिवत् । त्वगादीनान्तु प्राप्यकारित्वमुभयवादिसिद्धमेव । न चेन्द्रियाभावयोः सम्बन्धोऽस्ति । संयोगसमवायौ हि सम्बन्धौ । न च तौ तयोः स्तः । द्रव्ययोरेव संयोग इति नियमात् । अभावस्य च द्रव्यत्वाभावात् । अयुतसिद्धत्वाभावान्न समवायोऽपि ।

Translation—(The Mīmāmsaka objects and the objection is continued till the end of para 70). The sense-organs cognise those objects only that are connected to them. This is proved by a syllogism like this :—The sense-organs cognise objects on coming into contact with them, because they are instruments (causes) of cognition like light. Or the syllogism can be stated this way :—The eye and the ear cognise their objects after reaching them, because they are external sense-organs, like the organ of touch. That the tactile organ apprehends an object after its coming into contact with the object is admitted by both sides. Like that there is no relation between the sense-organ and **अभाव**. Conjunction and inherence are the only two (tangible) relations. Neither of these is possible between **इन्द्रिय** and **अभाव**, as conjunction can take place only between two substances and **अभाव** is not a substance. Also inherence is out of question as these two are not inseparables.

[68] विशेषणविशेष्यभावश्च सम्बन्ध एव न भवति । भिन्नोभयाश्रितैकत्वाभावात् । सम्बन्धो हि सम्बन्धिभ्यां भिन्नो भवति, तदाश्रितश्च, एकश्च । यथा भेरीदण्डयोस्संयोगः । स हि भेरीदण्डाभ्यां भिन्नः, तदुभयाश्रितश्च, एकश्च । न च विशेषणविशेष्यभावस्तथा । तथाहि । दण्डपुरुषयोर्विशेषणविशेष्यभावो न ताभ्यां भिद्यते । नहि दण्डस्य विशेषणत्वमर्थान्तरं, नापि पुरुषस्य विशेष्यत्वम् । अपि तु स्वरूपमेव । अभावस्यापि विशेषणत्वात् विशेष्यत्वाच्च । न चाभावे कस्यचित्पदार्थस्य द्रव्याद्यन्यतमत्वस्य सम्भवः । तस्माद्भावस्य स्वोपरक्तबुद्धिजनकत्वं यत्स्वरूपं तदेव विशेषणत्वं, न तु तदर्थान्तरम् ।

Translation—The relation existing between qualification (विशेषण) and the qualified (विशेष्य) is no relation at all, as it is not a single entity subsisting in two things distinct from itself. A relation should always be (1) distinct from the relata, (2) should subsist in both the related things, and (3) should be a single entity; just like the conjunction between the drum and the stick. This conjunction is different from the drum and the stick, subsists in both of them and is only one. The relation between qualification and the qualified—विशेषणविशेष्यभाव—is not such (i.e. does not satisfy any of these conditions). For example the relation between the stick, the qualification, and the man, the qualified (in a cognition like दण्डी पुरुषः) is not something different from these two; for the character of being a qualification (विशेषणता) existing in the stick is not something distinct from the stick itself; nor is the character of being the qualified (विशेष्यता) existing in the man anything distinct from the man himself. Both these characters—विशेषणता and विशेष्यता—are identical with the forms of these two things—विशेषण and विशेष्य. अभाव also has both these characters (i.e. it becomes both विशेषण and विशेष्य). If it were different from these it should come under any of the six positive categories (द्रव्य, गुण etc). But none of these categories subsists in अभाव. Therefore the विशेषणता subsisting in अभाव is nothing other than its own form which consists in its capacity to cause the knowledge of the thing related to it.

[69] एवं व्यापकत्वकारणत्वादयोप्यूह्याः। स्वप्रतिबद्धबुद्धिजनकत्वस्वरूपमेव व्यापकत्वमग्न्यादीनाम्। कारणत्वमपि कार्यानुकृतान्वयव्यतिरेकिस्वरूपमेव तन्त्वादीनाम्। न त्वर्थान्तरम्। अभावस्यापि व्यापकत्वात् कारणत्वाच्च। नह्यभावे सामान्यादिसंभवः।

Translation—The same argument should be applied to relationships such as व्यापकत्व, कारणत्व, etc; (i.e. the relation between the pervaded and the pervader—व्याप्यव्यापकभाव—that between cause and effect—कार्यकारणभाव—etc.). The character of pervading subsisting in fire etc. (व्यापकत्व) is identical with that form of fire etc. which enables the cognition of something concomitant with it (i.e. its व्याप्य). Similarly the character

of being a cause subsisting in the thread etc. (कारणत्व) is nothing other than its form which enables the grasp of the concomitance, both affirmatively and negatively, with its effect. अभाव also becomes व्यापक and कारण. (If this character were to be something different from अभाव itself, it should be a generality like तन्तुत्व). But such a generality does not subsist in अभाव.

[70] तदेवं विशेषणविशेष्यभावो न विशेषणविशेष्यस्वरूपाभ्यां भिन्नः। नप्युभयाश्रितः। विशेषणे विशेषणभावमात्रस्य सत्वात्, विशेष्यभावस्याभावात्। विशेष्ये च विशेष्यभावमात्रस्य सत्वात्, विशेषणभावस्याभावात्। नाप्येकः। विशेषणं च विशेष्यं च, तयोर्भाव इति द्वन्द्वात्परं श्रूयमाणो भावशब्दः प्रत्येकमभिसम्बध्यते। तथा च विशेषणभावो विशेष्यभावश्चेति द्वावेतौ। एकश्च हि सम्बन्धः। तस्मात् विशेषणविशेष्यभावो न सम्बन्धः। एवं व्याप्यव्यापकभावादयोऽपि। सम्बन्धशब्दप्रयोगस्तु उभयनिरूपणीयत्वसाधर्म्येणोपचारात्। तथाचाऽसम्बद्धस्याऽभावस्येन्द्रियेण ग्रहणं न सम्भवति।

Translation—Thus the relation विशेषणविशेष्यभाव is not distinct from the form of the qualification and from that of the qualified. Nor does it subsist in both. In the qualification there exists its character only and not that of the qualified and in the qualified there exists its character alone and not that of the qualification. It is also not a single entity (as संयोग or समवाय); for the word भाव occuring at the end of a द्वन्द्व compound (विशेषणं विशेष्यं च विशेषणविशेष्ये तयोर्भावः) should be construed with each of its members, and this gives rise to two characters (विशेषणभाव and विशेष्यभाव). But a relation can be only one (as already stated above). Therefore विशेषणविशेष्यभाव does not beeome a relation at all. Similar is the case with व्याप्यव्यापकभाव, etc. The application of the word सम्बन्ध to these is only by implication, due to their similarity (with संयोग or समवाय) in co-forming both the relata (through some sort of co-existence). As a result of the above discussion अभाव is not capable of being perceived by the sense organs as it can have no relation with them. (So a new प्रमाण should be postulated for the cognition of अभाव).

[71] सत्यम् । भावावच्छिन्नत्वाद्व्याप्तेर्भावं प्रकाशयदिन्द्रियं प्राप्तमेव प्रकाशयति । नत्वभावमपि । अभावं प्रकाशयदिन्द्रियं विशेषणविशेष्यभावमुखेनैवेति सिद्धान्तः । असम्बद्धाभावग्रहेऽतिप्रसङ्गदोषस्तु विशेषणतयैव निरस्तः । समश्च परमते ।*

Translation—(**Answer**). (In the inference quoted earlier that sense-organs cognise those objects which come in contact with them) the व्याप्ति is to be limited to positive objects (भावपदार्थाः). This means that sense-organs require connection with the objects only when they cognise positive things and not in the case of **अभाव**. The cognition of **अभाव** takes place through the sense-organs by **विशेषणविशेष्यभाव** (as explained under perception) and this is our established conclusion (**सिद्धान्त**). The objection that sense-organs would in that case cognise things not in contact with them has been answered by us by introducing the relation **विशेषणता** (vide p. 51 and 55). The objection is common to the opponent's view also (where they meet it in their own way).

Notes—The reader may again go through the notes on pp. 30-32 where the N. V. views about **अभाव** have been explained briefly. The Prābhākaras do not accept **अभाव** as a separate category but hold that it is identical with its substratum (**अधिकरणस्वरूप**). A cognition like 'there is no jar at this spot' actually refers, according to them, only to the empty spot. This is only a round-about way of accepting **अभाव** without admitting that fact. The Bhāṭṭa Mīmāṁsakas, who are the chief opponents here not only accept **अभाव** as a distinct category but stipulate a separate **प्रमाण** for its cognition. Their arguments are briefly stated here as **पूर्वपक्ष** (objection) in paras 67 to 70 and the Naiyāyika replies briefly in para 71, as it has already been explained under para 31 (as also in the notes on p. 55).

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* The verse quoted in the notes on p. 143 (**यत्रोभयोः** etc) is found printed after **परमते** as part of the text in all the published texts of **तर्कभाषा**. It is not found in the MSS. relied here nor is it commented upon by Ch. Bh. (vide footnote on p. 143).

The Bhāṭṭas in their anxiety to cut at the roots of the Nyāya view, begin by establishing that in प्रत्यक्ष the sense organs should have some sort of purposeful connection with the objects they cognise, that they cannot have any connection with अभाव as it is a non-existent entity, that it cannot be cognised by any of the other accepted प्रमाण's and that therefore a new प्रमाण, which they call अनुपलब्धि or अभाव* should be accepted for its cognition. They argue that वि. वि. भा. and similar relations like कार्यकारणभाव, व्याप्यव्यापकभाव, आधाराधेयभाव, etc. cannot be considered as purposeful relations like संयोग or समवाय. A relation, सम्बन्ध, according to them, should rest on both the things they relate, should be something different from the relata and should be only one in its form. All these pseudo-relations do not satisfy any of these conditions and cannot be considered as relations at all. They are just certain temporary characteristics which help in their own form to bring together the knowledge of the two things related. Because of this similarity the word सम्बन्ध is used to denote them in an implied sense. In this way their reluctance to accept वि. वि. भा. as a relation compels them to resort to अनुपलब्धि as a distinct प्रमाण.

The Naiyāyika counters by saying that वि. वि. भा. is nothing new as it has been accepted by all in all cognitions. Since it occurs in cognitions of अभाव like इह घटो नास्ति it satisfies all the conditions for sense-object contact and so there is no need to postulate a new प्रमाण. Moreover, if अनुपलब्धि is posed as a new प्रमाण, that itself being an अभाव should have another अनुपलब्धि for its apprehension, which in its turn will require another, and so on. This, therefore, leads to endless regression—अनवस्था—and thus the Naiyāyika claims the advantage of लाघव on his side.

This controversy really centres round the conceptions of सम्बन्ध and अभाव which differ considerably with both the schools. To the Nyāya realist relation presupposes diflerence

* The word अभाव itself is used to denote the instrument of its cognition. To avoid confusion we shall stick to अनुपलब्धि.

to the total exclusion of identity and this makes his relation as something wholly external and never internal. This in its turn necessitates the acceptance of the view that the parts are distinct from the whole and that they do not lose their separate entity when they become the relata of some relation. With this background he has no hesitation to accept स्वरूपसम्बन्ध like वि. वि. भा. etc. as a purposeful relation like संयोग or समवाय. But then he has to explain his position which reduces संयोग to a गुण, but raises समवाय to a पदार्थ and makes स्वरूपसम्बन्ध to assume the forms of the two relata which can be any two things out of the seven categories. The Bhāṭṭas hold that difference is not incompatible with identity; that all relations involve difference and identity in however small measure it may be; that no relation can exist between two dissimilar things like Delhi and Monday; that all relations are internal and their function is to *unify* and not merely to bring two things together. This argument of theirs would spell the extinction of संयोग which they support by making it closer to समवाय. Their contention that तादात्म्यसम्बन्ध is wholly internal while स्वरूपसम्बन्ध is no relation at all is contrary to experience and is totally unpalatable to the Naiyāyika to whom difference (भेद) is uncompromising even to the extent of repudiating तादात्म्य. These and similar differences among the various schools of thought have persisted ever since their origin and their speculations have contributed considerably to the advancement of philosophical thought. So the position remains that the Bhāṭṭa (and others of his ilk mentioned earlier) refuses to accept व्यतिरेकानुमान and वि. वि. भा. as a सन्निकर्ष and instead postulates अर्थापत्ति and अनुपलब्धि to account for the respective cognitions. The author has therefore rightly ended the discussion by saying that this is our सिद्धान्त and that loop-holes for objection are common on both sides, which can always be answered in consonance with their own dogmas.

After describing the four instruments of cognition as accepted by the Nyāya system the author enters into another important topic connected with the validity or otherwise of the cognitions arising through these. This discussion is commonly known as प्रामाण्यवाद.

(9) प्रामाण्यवादः

[72] इदमिदानीं निरूप्यते । जलादिज्ञाने जाते तस्य प्रामाण्यमवधार्य कश्चिज्जलादौ प्रवर्तते । कश्चित्तु सन्देहादेव प्रवृत्तः प्रवृत्त्युत्तरकाले जलादिप्रतिलम्भे सति प्रामाण्यमवधारयतीति वस्तुगतिः । अत्र कश्चिदाह । 'प्रागेव प्रवृत्तेः प्रामाण्यमवधार्य पुरुषः प्रवर्तते, स्वत एव प्रामाण्यावधारणात्' । अस्यार्थः । येनैव यज्ज्ञानं गृह्यते तेनैव तद्गतं प्रामाण्यमपि । न तु ज्ञानग्राहकादन्यत् ज्ञानधर्मस्य प्रामाण्यस्य ग्राहकम् । तेन ज्ञानग्राहकातिरिक्तानपेक्षत्वमेव स्वतस्त्वं प्रामाण्यस्य । ज्ञानं च प्रवृत्तेः पूर्वमेव गृहीतम् । कथमन्यथा प्रामाण्याऽप्रामाण्यसन्देहोऽपि स्यात् । अनधिगते धर्मिणि सन्देहानुदयात् । तस्मात् प्रवृत्तेः पूर्वमेव ज्ञाततान्यथानुपपत्तिप्रसूतयाऽर्थापत्त्या ज्ञाने गृहीते ज्ञानगतं प्रामाण्यमपि अर्थापत्त्यैव गृह्यते । ततः पुरुषः प्रवर्तते । न तु प्रथमं ज्ञानमात्रं गृह्यते । ततः प्रवृत्त्युत्तरकाले फलदर्शनेन ज्ञानस्य प्रामाण्यमवधार्यत इति ।

Translation—This is being considered now. (In general) when a man knows that there is water (at some place) he proceeds to get it only after ascertaining the validity of his cognition. In some cases he may act even on the basis of doubtful validity and if he finds water after his effort he determines that his knowledge is valid. This is the actual state of affairs. On this some people (the Bhāṭṭa Mīmāṃsakas are meant here) object as follows :— 'Before his effort a man ascertains the validity of his knowledge and then acts, because validity is ascertained intrinsically.' This means that when a man gains a certain knowledge through whatever means, he gathers it validity also through the same means. No cause other than those that created that knowledge, is required for ascertaining validity which is a characteristic of the knowledge. Thus intrinsicality (स्वतस्त्व) of validity constitutes non-dependence on causes other than those that produced the knowledge. Knowledge precedes effort (प्रवृत्ति). Otherwise how can there arise doubt about its validity or otherwise ? No doubt can arise about a thing before it is known. Therefore it has to be accepted that before he proceeds to act man gains knowledge through अर्थापत्तिप्रमाण based on the unaccountability of the

'*known-ness*' (ज्ञातता), and he apprehends along with it the validity of that cognition as well through that अर्थापत्ति itself, and then he proceeds to act. It is not correet to say that at first knowledge alone is gained and then its validity is determined by seeing the fruitful result of his action. [Up to this beginning with 'This means' is the author's explanation of the Bhāṭṭa objection].

[73] अत्रोच्यते । ज्ञाततान्यथानुपपत्तिप्रसूतयाऽर्थापत्त्या ज्ञानं गृह्यत इति यदुक्तं तदेव वयं न मृष्यामहे। तया प्रामाण्यग्रहस्तु दूरत एव। तथाहि। इदं किल परस्याभिमतम्। घटादिविषये ज्ञाने जाते 'मया ज्ञातोऽयं घट' इति घटस्य ज्ञातता प्रतिसन्धीयते। तेन ज्ञाने जाते सति ज्ञातता नाम कश्चिद्धर्मो जात इत्यनुमीयते। स च ज्ञानात्पूर्वमजातत्वात्, ज्ञाने जाते च जातत्वात्, अन्वयव्यतिरेकाभ्यां ज्ञानेन जन्यत इत्यवधार्यते। एवञ्च ज्ञानजन्योऽसौ ज्ञातता नाम धर्मो ज्ञानमन्तरेण नोपपद्यते, कारणाभावे कार्यानुदयात्। तेनाऽर्थापत्त्या स्वकारणं ज्ञानं ज्ञाततयाऽक्षिप्यत इति। न चैतद्युक्तम्। ज्ञानविषयतातिरिक्ताया ज्ञातताया अभावात्।

Translation—[The above objection is being answered as follows by the Naiyāyika]. Firstly we do not admit what you say about knowledge being grasped through अर्थापत्ति based on the unaccountability of ज्ञातता. So what to speak about its validity through the same means (अर्थापत्ति) ? To explain, this is what the opponent means. When one cognises a jar (etc.) he also apprehends the ज्ञातता about the jar in the form 'I have gained knowledge of the jar'. Through this it is inferred that a characteristic called ज्ञातता is also produced when the knowledge (of the jar) occurs. ज्ञातता does not arise before this knowledge, but does arise after the knowledge; and because of these positive and negative concomitances it is determined that ज्ञातता is produced by the knowledge (of the jar). As no effect is produced without cause, this ज्ञातता produced out of the knowledge, cannot be accounted for without its cause, the knowledge. This is how through अर्थापत्तिप्रमाण knowledge (the cause) is brought about by ज्ञातता (the effect). This view is not correct for there is nothing like ज्ञातता apart from the fact of being the object of the knowledge.

[74] ननु ज्ञानजनितज्ञाततााधारत्वमेव हि घटादेर्ज्ञानविषयत्वम् । तथाहि । न तावत्तादात्म्येन विषयता । विषयविषयिणोर्घटतत्ज्ञानयोस्तादात्म्यानभ्युपगमात् । तदुत्पत्या तु विषयत्वे इन्द्रियादेरपि विषयत्वापत्तिः । इन्द्रियादेरपि तस्य ज्ञानस्योत्पत्तेः । तेनेदमनुमीयते । ज्ञानेन घटे किञ्चिज्जनितं, येन घट एव तस्य ज्ञानस्य विषयो, नान्य इत्यतो विषयत्वान्यथानुपपत्याऽर्थापत्यैव ज्ञाततासिद्धिः । न तु प्रत्यक्षमात्रेण ।

Translation—(The Mīmāṁsaka again objects). The fact that jar becomes the object of a cognition is nothing other than that of its being the substratum of ज्ञातता that is produced by the cognition of the jar. It is like this. The object-ness of the jar is not brought about by the relation तादात्म्य because no identity is admitted between the विषय, jar, and the विषयिन्, its cognition. If it is contended that the objectness of the jar is due to its producing the cognition, then the sense-organs also would become objects of cognition which is produced by them. Therefore it is inferred that the jar acquires a characteristic (through the cognition) by which that alone becomes the object of that cognition and not other things (like the sense organs). It is in this manner that ज्ञातता is proved to exist by अर्थापत्ति caused by the unaccountability of the object-ness, and not merely by sense-perception.

[75] मैवम् । स्वाभावादेव विषयविषयितोपपत्तेः । अर्थज्ञानयोरेतादृश एव स्वाभाविको विशेषः, येनानयोर्विषयविषयिभावः । इतरथाऽतीतानागतयोर्विषयत्वं न स्यात् । ज्ञानेन तत्र ज्ञातताजननासम्भवात् । असति धर्मिणि धर्मजननायोगात् । किञ्च ज्ञाततााया अपि स्वज्ञानविषयत्वात् तत्रापि ज्ञातान्तरप्रसङ्गः । तथा चानवस्था । अथ ज्ञाततान्तरमन्तरेणापि स्वभावादेव विषयत्वं ज्ञाततायाः । एवं चेत्तर्हि घटादावपि किं ज्ञाततयेति । अस्तु वा ज्ञातता । तथापि तन्मात्रेण ज्ञानं गम्यते । ज्ञातताविशेषेण प्रमाणज्ञानाऽव्यभिचारिणा ज्ञानप्रामाण्यमिति कुत एव ज्ञानग्राहकग्राह्यता प्रामाण्यस्य । अथ केनचिज्ज्ञातताविशेषेण प्रमाणज्ञानाऽव्यभिचारिणा ज्ञानप्रामाण्ये सहैव गृह्येते । एवं चेदप्रामाण्येऽपि शक्यमिदं वक्तुं केनचिज्ज्ञातताविशेषेणाऽप्रमाणज्ञानाऽव्यभिचारिणा ज्ञानाप्रामाण्ये सहैव गृह्येते इत्यप्रामाण्यमपि

स्वत एव गृह्यताम् । अथैवमप्रामाण्यं परतस्तर्हि प्रामाण्यमपि परत एव गृह्यताम् । ज्ञानग्राहकादन्यत इत्यर्थः ।

Translation—(The Naiyāyika answers). This is not correct; for the characters of becoming object and subject (विषयता and विषयिता) arise from the very nature of a cognition. Between a thing and its cognition there is this natural peculiarity that the former becomes the object (विषय) and the latter the subject (विषयिन्) in relation to each other. If this were not so no object-ness could occur in past and future things (which are presented in one's cognition), because ज्ञातता does not exist in them in as much as no characteristic (धर्म like ज्ञातता) can be produced in a thing (धर्मिन्) that is not there. Moreover ज्ञातता itself is the object of a cognition (presumption as explained by the opponent in para 73), which would require another ज्ञातता (for the support of that cognition), and that another and so on endlessly. Thus it would lead to the defect of endless regression — अनवस्था. If (to avoid this defect) you say that without a second ज्ञातता the first one can become the object on its own, then why accept the first ज्ञातता (as existing in the jar when the jar itself can become the object on its own). Granting (for the sake of argument) the existence of ज्ञातता, even then knowledge alone (and not its validity) can be produced by that ज्ञातता. Validity can come only through a particular ज्ञातता which does not stray away from a valid cognition and so how can it be said that validity is grasped by the same means that produce the cognition ? If some such particular ज्ञातता which does not stray away from a valid cognition were there by virtue of which knowledge and its validity are grasped simultaneously. the same argument can be applied to invalidity also, viz. that there is some particular ज्ञातता which does not stray away from an invalid cognition and by virtue of which that knowledge and its invalidity are grasped simultaneously. In this manner invalidity also would be grasped intrinsically (which position is not acceptable to both sides). If in spite of this, invalidity is held to be grasped extrinsically, then validity should also be held to be grasped extrinsically, i.e. both are grasped by means other than those that produce cognition.

[76] ज्ञानं हि मानसप्रत्यक्षेणैव गृह्यते, प्रामाण्यं पुनरनुमानेन। तथाहि। जलज्ञानानन्तरं जलार्थिनः प्रवृत्तिर्द्वेधा, फलवती, अफला चेति। तत्र या फलवती प्रवृत्तिस्सा समर्था। तया तज्ज्ञानस्य याथार्थ्यलक्षणं प्रामाण्यमनुमीयते। प्रयोगश्च विवादाध्यासितं जलज्ञानं प्रमाणं, समर्थप्रवृत्तिजनकत्वात्। यन्न प्रमाणं तन्न समर्थां प्रवृत्ति जनयति, यथा प्रमाणाभास इति केवलव्यतिरेकी। अत्र च फलवत्प्रवृत्तिजनकं यज्जलज्ञानं तत्पक्षः। तस्य प्रामाण्यं साध्यम्। यथार्थत्वमित्यर्थः। नतु प्रमाकरणत्वं, स्मृत्यां व्यभिचारापत्तेः। हेतुस्तु समर्थप्रवृत्तिजनकत्वं, फलवत्प्रवृतिजनकत्वमितियावत्। अनेन च केवलव्यतिरेक्यनुमानेनाऽभ्यासदशापन्नस्य ज्ञानस्य प्रामाण्येऽवबोधिते तद्दृष्टान्तेन जलप्रवृत्तेः पूर्वमपि तज्जातीयत्वेन लिङ्गेनाऽन्वयव्यतिरेक्यनुमानेनाऽन्यस्य ज्ञानस्याऽनभ्यासदशापन्नस्य प्रामाण्यमनुमीयते। तस्मात् परत एव प्रामाण्यं, न ज्ञानग्राहकेणैव, गृह्यत इति॥

चत्वार्येव प्रमाणानि युक्तिलेशोक्तिपूर्वकम्।
केशवो बालबोधाय यथाशास्त्रमवर्णयत्॥

इति प्रमाणपदार्थः समाप्तः।

Translation – (The Naiyāyika explains his position). Knowledge is gained by mental perception and its validity by inference. It is like this. After cognising water (at a place) a person's effort in search of it ends either way, fruitful or fruitless. When it is fruitful it is successful (समर्थ). Through such a fruitful effort is inferred the true-to-fact nature of that knowledge, which is what is called प्रामाण्य (validity). The syllogism is as follows. The knowledge of water which is under dispute is valid, because it causes fruitful effort. The व्याप्ति (here) 'that (knowledge) which is not valid does not cause fruitful effort, like an invalid knowledge', is a purely negative one. Here 'knowledge of water which causes a fruitful effort' is the पक्ष, and प्रामाण्य (validity) is the *probandum*. प्रामाण्य here means 'the fact of being true to its nature' and not the 'fact of being instrument of a valid cognition'. (If the latter meaning is adopted) there will occur the fault of व्यभिचार in remembrance (which is also a kind of knowledge). हेतु or *probans* is the 'fact of causing successful effort'. After having ascertained through negative inference

the validity of a knowledge which has led to effective action, the validity of another knowledge which has not led to such effective action is also inferred, on the analogy of the previous inference, even before the effort for search of water, through positive and negative concomitance of the *probans* which has (the added advantage of) similarity to the previous हेतु (तज्जातीयेन लिङ्गेन). Therefore we conclude that the validity of knowledge is grasped extrinsically and not by the same means that produce the knowledge.

There are only four प्रमाण's and Keśava has explained all four according to the Nyāya Śāstra, for the benefit of beginners, mentioning only the bare minimum of arguments bearing on each topic.

Thus has ended (the explanation of) the category प्रमाण.

Notes—Having explained the instruments of valid cognition it is but natural to enquire into the fact whether the knowledge gained through these instruments is true to fact or not, or in other words valid or invalid. A thirsty man on perceiving or hearing from someone that there is water yonder, goes to the place indicated. If he finds water there he determines that his knowledge of the existence of water is valid, and if otherwise it is not valid. On the analogy of such experiences the Naiyāyikas hold that validity or invalidity of a knowledge is determined only after the object of the cognition has been effectively tested. In other words neither validity nor invalidity प्रामाण्य or अप्रामाण्य of knowledge is self-evident or intrinsic = स्वतोग्राह्य. स्वतोग्रह्यत्व, or in short स्वतस्त्व, is defined as ज्ञानग्रहकातिरिक्तानपेक्षत्वं, or the fact that validity or invalidity is grasped independently of causes *other than those* that produced the knowledge; i.e. by the *same* causes of that knowledge. Its opposite, extrinsicality, परतोग्राह्यत्व or परतस्त्व in short, is ज्ञानग्राहकातिरिक्तापेक्षत्वं, the fact that either is revealed by causes other than those that produce knowledge. With these definitions in mind we get four possible views regarding validity and invalidity.

1. Validity and invalidity both intrinsically or स्वतः—
view held by the Sāmkhyas.
2. Both extrinsically or परतः—view held by the Naiyāyikas.

3. Validity स्वतः and invalidity परतः—view held by the Mīmāṁsakas.
4. Validity परतः and invalidity स्वतः—view held by a section of the Buddhists.

By explaining the arguments of the chief exponents of स्वतस्त्व and परतस्त्व the topic can be clarified sufficiently. So the author after stating the Nyāya view in general in para 72, summarises the view of the Bhāṭṭa Mīmāṁsakas as पूर्वपक्ष in para 72, 73, and 74 and finally establishes the Nyāya stand in paras 75 and 76.

There is considerable difference in the theory of knowledge among the various schools. Here we shall brieflly refer to two of the contending schools as relevant to the topic under discussion. According to the Naiyāyikas a cognition like इदं रजतं or अत्र सलिलं is called व्यवसायज्ञानं. This cognition is processed by the mind into a judgement which is called अनुव्यवसाय (after-cognition). Being a purely mental process it is considered to be मानसप्रत्यक्ष = mental perception (vide the author's opening sentence in para 76). This usually takes the form रजतं जानामि or सलिलं जानामि, embodies the व्यवसायज्ञान as its object and produces the knowledge of the object (silver, water etc.) of the cognition. It does not reveal the validity or otherwise of the cognition or of itself. If this knowledge were to do so it would not be possible to explain the doubt that sometimes occurs whether the object cognised is real silver or not, as no doubt could arise about a thing the validity of which has already been ascertained. The validity or invalidity comes in by a different cause by inference—after the person has picked up the object in front and tested it. If his effort proves successful, i.e. if he finds it is real silver, he infers as follows :—इदं रजतज्ञानं प्रमा, सफलप्रवृत्तिजनकत्वात्। या सफलप्रवृत्तिजनिका सा प्रमा, यथा प्रमान्तरम् ॥ If however he finds that it is not silver, but only a piece of tin or nacre, he infers the invalidity also by a similar inference; viz, इदं ज्ञानमप्रमा, विफलप्रवृत्तिजनकत्वात्। या विफलप्रवृत्तिजनिका साऽप्रमा, यथाऽप्रमान्तरम्। In both cases there can be व्यतिरेक व्याप्ति as well, viz. या न प्रमा सा न सफलप्रवृत्ति जनिका. यथाऽप्रमा, etc. (as pointed out in para 76). Thus the Naiyāyika stand is that

knowledge is presented by अनुव्यवसाय as a mental perception, then comes the effort (प्रवृत्ति) prompted by the need or desire to secure the object of the cognition, and lastly the validity or invalidity of both the cognition and the knowledge from it—उत्पत्तौ ज्ञप्तौ च—through a process of inference (परतः) based on the fruitfulness or fruitlessness of the effort.

There are three distinct schools of thought among the Mīmāṁsakas; (1) The Bhāṭṭas or followers of कुमारिल भट्ट (circa 8th century A. D.), also called वार्तिककार as he wrote the श्लोकवार्तिक and तन्त्रवार्तिक on शबरभाष्य over the Mīmāṁsā Sūtras; (2) The Prābhākaras or followers of प्रभाकर also named गुरु,*, an younger contemporary and student of कुमारिल भट्ट, from whom he differed considerably in the interpretation of the Mīmāṁsā Sūtras as well as its भाष्य; and (3) The Miśras or followers of मुरारिमिश्र (not later than the 12th century). All the three schools hold the view of स्वतोग्राह्यत्व for validity and of परतोग्राह्यत्व for invalidity, but in their own method· To the Prābhākaras all experience is प्रमा (अनुभूतिः प्रमा as already mentioned) and any invalid cognition (or भ्रम as it is called) is only a case of non-discrimination. So there is no question of invalidity in their theory. For them knowledge is self-luminous (स्वप्रकाश) and in every cognition the knower (ज्ञाता), the object to be known (ज्ञेय), knowledge itself (ज्ञान) and its validity (प्रमात्व or प्रामाण्य) are all presented at the same time. They make no distinction between व्यवसाय and अनुव्यवसाय·

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* प्रभाकर is supposed to be a Kerala Namboodiri who went to Benares for further studies. There is an interesting story as to how he came to be named गुरु. Along with मण्डन, उम्बेक and others he was a student of कुमारिल भट्ट. One day while explaining a topic, the teacher was confronted with a sentence 'तत्रतु नोक्तं, अत्रापि नोक्तं, इत्युभयत्रोक्तम्' in the middle of the text. The teacher was a little puzzled over it when प्रभाकर in his enthusiasm explained, "सुष्ठूक्तमेव । तत्र तुना उक्तम् । अत्र अपिना उक्तम् । इत्थं स्थलद्वयेऽप्युक्तम् ।" कुमारिल was struck by the genius of his pupil and in his joy proclaimed, 'त्वमेव गुरुः'. Since then th name stuck to him and his followers are quoted as गुरवः by later scholars. Even to-day there are more followers of प्रभाकर in Kerala than in other parts of the country.

ज्ञान's. The Miśras, like the Naiyāyikas, accept अनुव्यवसायज्ञान and make it the cause for the knowledge from the cognition. But, unlike the Naiyāyikas, hold the validity of the व्यवसाय is revealed by the अनुव्यवसाय simultaneously, thus, advocating स्वतस्त्व for validity.

The Bhāṭṭa Mīmāṁsakas who are the chief opponents here, hold that all knowledge is transcendental, अतीन्द्रिय. This means that a sense-organ (say the eye) when it comes into contact with an object (say a jar) does not immediately convey to the mind the knowledge, अयं घटः as knowledge is अतीन्द्रिय; but it causes the mind to apprehend a peculiar characteristic (धर्म) in the घट which is of the form 'ज्ञातो मया घटः' and hence called ज्ञातता—known-ness. This ज्ञातता can happen only after something is known and so to account for it the knowledge of the jar is *presumed*. It is thus that the knowledge of the jar is presented by ज्ञातता through अर्थापत्ति and is expressed in the text as ज्ञाततान्यथानुपपत्तिप्रसूतयाऽर्थापत्त्या ज्ञानं गृह्यते. When this knowledge is thus presented by ज्ञातता, along with it is presented its validity also by the same ज्ञातता, and no other cause is needed for it. Only after knowledge together with its validity has been grasped in the above manner does a person proceed to act. In short what the Naiyāyikas explain by अनुव्यवसाय the Bhāṭṭas try to explain through this ज्ञातता in consonance with their theory that knowledge is transcendental.

The objections raised by the Naiyāyika against the hypothesis of स्वतस्त्व of the Bbāṭṭas are three-fold. Firstly he does not subscribe to the postulation of an imaginary ज्ञातता which, according to him, is nothing other than the objectness (विषयता) of the thing presented in a cognition. Accepting as he does कार्यकारणभाव as an effective relation (vide p. 147) it is easy for the Naiyāyika to account for the विषयता in the jar as a natural one without any external support for its presence. Since the Bhāṭṭa does not accept कार्यकारणभाव as a relation at all and since (as pointed out earlier) knowledge to him is अतीन्द्रिय, he has to explain विषयता through his ज्ञातता as ज्ञानजनितज्ञातताधारत्वम्. The objection of the Mīmāṁsaka to this point is that if jar is presented in the cognition as object

because it produces the cognition, then the sense organs and similar other causes should also be presented in it for the same reason (vide तदुत्पत्त्या तु विषयत्वे etc. in para 74). Though this also stands refuted by the total rejection of ज्ञातता, it is evident that the causality in the object is quite different from that in the sense-organs etc., in as much as the object is the *content* of the cognition.

The second objection is that ज्ञातता being presented in the form ज्ञातो घटः, itself forms the object of its cognition. To establish this object-ness even according to the opponent's method would need another ज्ञातता to support it, which in turn would require another and so on. To avoid such endless regression if it is contended that the first ज्ञातता is such that it becomes naturally the object of its cognition without the aid of another, then there is no necessity for postulating the first ज्ञातता itself. The विषयता can be directly attributed to the object itself without the intervention of an imaginary ज्ञातता.

Thirdly, even if for the sake of argument, ज्ञातता is conceded for causing the knowledge of an object, how does it reveal at the same time the validity of the knowledge ? Validity is grasped by अनुमान (or by अर्थापत्ति according to the opponent) and in either case the हेतु, ज्ञातता should be such that it does not stray away from a *valid* knowledge (प्रमाणज्ञानाव्यभिचारिन्). This means that ज्ञातता from a valid cognition alone can prove its validity, but at this stage we do not know whether the cognition is valid or not. If ज्ञातता of water in जलज्ञान proves its validity also, how does a person after a fruitless search conclude that the cognition was invalid as no new ज्ञातता has come in between ? This would in effect amount to accepting the Prābhākara view that all experience is valid. Moreover the same argument can be extended to invalidity as well and it would be more reasonable to accept that validity and invalidity are both revealed intrinsically on the analogy of validity as the opponents hold; or that both are revealed extrinsically as the Naiyāyikas explain. Either way there is

no reason to hold that validity alone is स्वतोग्राह्य while invalidity is at the same time परतोग्राह्य.

It should be remembered that the Mīmāṁsakas who maintain that sound is eternal (शब्दो नित्यः) and that the Vedas are अनादि and अपौरुषेय (vide p. 129) have to stick to their स्वतस्त्व theory as otherwise the authority of the Vedas will be open to question under external evidence. The Naiyāyikas too accept the authority of the Vedas, but as the creation of an Omniscient God and so advocate परतस्त्व view and maintain वेदप्रामाण्य through His Omniscience.

In this connection it is necessary to know a little more about invalid cognitions or भ्रम, as any theory of knowledge will be of little use if it does not enable one to distinguish between प्रमा and भ्रम—truth and error. At the outset our author begins by defining प्रमा as यथार्थानुभव and by the word यथार्थ he excludes all doubts and erroneous experiences, which are अयथार्थ (vide p. 5). This in effect amounts to saying that यथार्थ is that which is not अयथार्थ. In Part II of this book while treating about बुद्धि (vide para 121c) he explains अयथार्थ as अर्थव्यभिचारी अप्रमाणजः. This does not however convey directly what constitutes the truthfulness or erroneousness of a cognition.

The following definitions from the तर्कसंग्रह of अन्नम्भट्ट will be found more instructive in this respect; तद्वति तत्प्रकारकोऽनुभवो यथार्थः and तदभाववति तत्प्रकारकोऽनुभवोऽयथार्थः. In both sentences the pronoun तत् denotes the प्रकार = (विशेषण = attribute). These mean that (1) a valid cognition (प्रमा) is that in which the qualified thing is presented as qualified by its own attribute, and (2) an erroneous cognition (अप्रमा or भ्रम) is that in which it is presented as qualified by an attribute other than its own. If on seeing a piece of rope one grasps it as अयं रज्जु, the rope is presented in the cognition as qualified by its own attribute रज्जुत्व and therefore it is प्रमा. If however he cognises it as अयं सर्पः, the thing in front is presented to him as possessing an attribute not existing in it (सर्पत्व). Therefore it becomes भ्रम. The theory of explaining such erroneous cognitions is called in general ख्यातिवाद and forms an important part of the theory of knowledge in all schools of thought.

There are five important views about ख्यातिवाद which are enumerated in the following verses. The second verse gives the chief advocates of each of these five in the order enumerated in the first.

"आत्मख्[1]यातिरसत्[2]ख्यातिरख्या[3]तिः ख्याति[4]रन्यथा ।
तथाऽनिर्वचनीयेति[5] ख्यातयः पञ्चधा विदुः ॥
योगाचाराः माध्यमिकास्तथा गुर्वनुयायिनः ।
नैयायिकाः मायिनश्च प्रायः ख्यातिं क्रमाज्जगुः ॥

(1) आत्मख्याति or the theory of self-apprehension is the one advocated by the Yogāchāra school of Buddhists. They postulate that all determinate cognitions are erroneous. According to them, when one sees a white piece of metal in front, his self or आत्मन् which is identical with one's conciousness, चित्, transforms itself into silver due to its similarity to the object in front; and therefore the latter appears as silver in the cognition.

(2) The माध्यमिक or nihilistic school of Buddhists advocate the असत्ख्यातिवाद् or the theory of apprehension of a non-existing thing. They hold that even non-existing things are capable of being cognised without actual sense-object-contact. There is therefore every possibility of the thing in front being cognised as silver due to defects in the person himself or from external sources.

(3) To the Prābhākaras all cognitions are प्रमा and all erroneous apprehensions are cases of non-discrimination (as already mentioned on p. 157). So their theory is called अख्याति = non-apprehension. Their contention is that in mistaking a piece of tin as silver, two cognitions are involved, (i) the *perception* of the thing in front as 'this' (इदं) and (2) the *recollection* of silver cognised by him previously elsewhere, but without his knowing it as recollection. These two occur so quickly that the observer does not discriminate between the two, with the result that the silver from the recollective part merges into the perceptive part and gives rise to the cognition इदं रजतम्.

(4) अन्यथाख्याति is the theory of the Naiyāyikas. All erroneous cognition arise out of certain defects, दोष's, in the observer, in

the object or in any of the attributive causes. On seeing an object lying in front in a zig-zag position a man grasps it as only 'this' due to bad light, distance or some defect in his vision. The close similarity of the object in front to that of a previously cognised object brings out the recollection which is embedded in his mind as a संस्कार according to the general rule एकसम्बन्धिज्ञानमपरसम्बन्धिस्मारकम्. So far the Naiyāyika does not differ from the Prābhākara. Thereafter he does not agree with the latter in saying that somehow the two apprehensions coalesce into one and the observer blunders into the cognition अयं सर्पः. To account for the recollected object presenting itself in the perceptive portion without sense-object-contact, the Naiyāyika postulates a super-normal relation, ज्ञानलक्षणाप्रत्यासत्ति which has been explained in pp. 53–54. Through this relation he has no hesitation to say that a real object which does not have a certain attribute is presented in the cognition as having that attribute—तदभाववद्वस्तु तद्वत्त्वेन गृह्यते.

(5) It will be observed that while all the above four schools of thought *try to explain somehow* the presence of a non-existing thing such as silver or snake in an erroneous cognition none of them *accounts satisfactorily* for apprehending the non-existing thing in a perception. The Advaitin sees through the pitfalls in all the above methods and tries to surmount them through the help of माया or beginningless nescience—अनाद्यविद्या. His theory is called अनिर्वचनीयख्याति or the apprehension of the indefinable. When the sense of sight comes into contact with the object in front the above-mentioned nescience throws a veil over the nacre-limited-spirit (शुक्त्यवच्छिन्नचैतन्य) and thus prevents the apprehension of the nacre-ness and so the cognitive function, अन्तःकरणवृत्ति, apprehends the object as only 'this'—इदमाकारवृत्ति. The nescience, which continues to veil the शुक्तित्व, aided by the observer's prepossessions and by the similarity of the thing in front to silver, undergoes a change with the result that silver comes into being and superimposes itself on the sub-stratum observed as 'this'-शुक्त्यवच्छिन्न-चैतन्याधिष्ठिताऽविद्या रजताकाररूपेण परिणमते. This silver has thus only a relative reality called प्रातिभासिकसत्ता. It is अनिर्वचनीय as it is not capable of being defined as real, सत्, or as unreal,

असत्, or as both, सदसत्. Thus the Advaitin considers भ्रम as a complex cognition consisting of two distinctive factors; (i) the अन्तःकरणवृत्ति and (ii) the अविद्यावृत्ति. The object of भ्रम being relatively real, there is no need to accede to the extreme view of असत्ख्याति or to the acceptance of a supernatural relation proposed by the Naiyāyika.

The Viśiṣṭādvaitins, followers of Rāmānujācārya, follow the अख्याति theory of the Prābhākaras in general with minor modification to suit their postulates and give it a new name सत्ख्याति. The Bhāṭṭas accept अन्यथाख्याति without the super-normal relation. In its place they substitute their ज्ञातता, already explained above. The Dvaitins or followers of Mādhvācārya also accept the Naiyāyika theory, but explain it in another form without the supernatural relation or the ज्ञातता of the Bhāṭṭas. Because of the novel way of their exposition they take pride in calling their theory as अभिनवान्यथाख्याति. The Sāṁkhyas explain भ्रम in their own way calling it सदसत्ख्याति which on analysis amounts to a mixture of the Naiyāyika and Mādhyamika theories, without, of course, the super-normal relation of the former. In fact there are good grounds to believe that the माध्यमिक propounded his असत्ख्याति by modifying the Sāṁkhya theory. Jaina philosophers of the older school follow the Sāṁkhyas and those of the modern school appear to fall in line with the Naiyāyikas. Though each school of thought shows slight modifications here and there in their exposition and terminology these minor differences need not detain us here.

A comparative study of the various theories of भ्रम, would reveal the inter-relation of the different schools of thought and also provide an index to the epistemological acumen attained by each. It would appear that the author of the two verses quoted at the beginning of this discussion had in mind the ascending order of merit of each theory. Before concluding one is tempted to quote the words of the learned Professor. "If one could imagine that epistemological thought starts with असत्ख्याति as centre and, in its endeavour to escape from it, swings forcibly between the two diametrical termini of

अन्यथाख्याति and अख्याति, it would not be difficult to imagine that such thought inevitably describes a comprehensive epistemological circle in the form of अनिर्वचनीयख्याति, which easily accomodates itself to अख्याति in respect of the non-discrimination of the two वृत्ति's constituting a भ्रम and to अन्यथाख्याति by complete surrender in the case of सोपाधिकभ्रम". [S. K. S., A Primer of Indian Logic, pp. 130-131]

END OF PART I

उत्तरभागः

PART II

(1) प्रमेयाणि

[77] प्रमाणान्युक्तानि । अथ प्रमेयाण्युच्यन्ते । "आत्मशरीरेन्द्रियार्थबुद्धिमनःप्रवृत्तिदोषप्रेत्यभावफलदुःखापवर्गास्तु प्रमेय"मिति सूत्रम् ।

Translation—The instruments of valid cognition have been explained. Now the objects of such cognitions are being explained. They are (twelve in number as) enumerated in G. N. S. (1-1-9).

1. आत्मन् = The self or soul
2. शरीर = Body
3. इन्द्रिय = Sense-organ
4. अर्थ = Objects
5. बुद्धि = Knowledge
6. मनः = Mind
7. प्रवृत्ति = Action
8. दोष = Defect
9. प्रेत्यभाव = Re-birth
10. फल = Result
11. दुःख = Misery
12. अपवर्ग = Salvation.

Notes—प्रमेय is the second category out of the 16 mentioned in N. S. 1-1-1 on page 4. The propriety of enumerating the प्रमेय's in the above order is explained by Ch. Bh. as follows. आत्मन् is mentioned first as that is the agent enjoying all experiences of pleasure, pain, etc. शरीर is the second as it is the vehicle through which आत्मन् enjoys such experiences. Next comes the chief cause of all knowledge, इन्द्रियाणि, which form parts of the body. What the senses grasp, अर्थाः, are stated after them. Next comes बुद्धि or knowledge which the preceding two together convey to the soul. It is only through मनस् that knowledge is carried to the soul and so that follows बुद्धि. Mind is followed by प्रवृत्ति as all action to procure the desirable and to avoid the undesirable arises after knowledge. Next comes दोष which, through these actions, leads to merit and demerit. Birth is mainly due to one's past actions and so

प्रेत्यभाव follows as a consequence of प्रवृत्ति and दोष. The results (फलानि) which are to be enjoyed in this birth due to one's past actions are mentioned after birth. The combined effect of all these beginning from शरीर is suffering and so दुःख follows फल. The cessation of all sufferings in salvation which ends the cycle of birth and death and so it is stated at the end. The attainment of salvation is the end and aim of life and all the Śāstras are means to that end—vide गौतम's first Sūtra, प्रमाणादीनां तत्वज्ञानान्निश्रेयसाधिगमः.

1. आत्मन् [78a] तत्रात्मत्वसामान्यवानात्मा। स च देहेन्द्रियादिव्यतिरिक्तः। प्रतिशरीरं भिन्नो नित्यो विभुश्च। स च मानस-प्रत्यक्षः। विप्रतिपत्तौ बुद्धयादिगुणलिङ्गकः। तथा हि। बुद्धयादयस्तावद्गुणाः, अनित्यत्वे सति एकेन्द्रियमात्रग्राह्यत्वात्, रूपवत्। गुणश्च गुण्याश्रित एव। तत्र बुद्धयादयो न गुणा भूतानाम्। मानसप्रत्यक्षत्वात्। ये हि भूतानां गुणास्ते न मनसा गृह्यन्ते, यथा रूपादयः। नापि दिक्कालमनसां गुणाः, विशेषगुणत्वात्। ये हि दिक्कालादिगुणाः संख्यादयो न ते विशेषगुणाः। गुणत्वे सत्येकेन्द्रियग्राह्यत्वात्, रूपवत्। अतो न दिगादिगुणाः। तस्मादेभ्योऽष्टभ्यो व्यतिरिक्तो बुद्धयादीनामाश्रयो वक्तव्यः। स एवात्मा॥

[78b] प्रयोगश्च, बुद्धयादयः पृथिव्याद्यष्टद्रव्यातिरिक्तद्रव्याश्रिताः, पृथिव्याद्यष्टद्रव्यानाश्रितत्वे सति गुणत्वात्। यस्तु पृथिव्याद्यष्टद्रव्यातिरिक्तद्रव्याश्रितो न भवति नासौ पृथिव्याद्यष्टद्रव्यानाश्रितत्वे सति गुणोऽपि भवति, यथा रूपादि, इति केवलव्यतिरेकी। अन्वयव्यतिरेकी वा। तथा हि। बुद्धयादयः पृथिव्याद्यष्टद्रव्यातिरिक्तद्रव्याश्रिताः, पृथिव्याद्यष्टद्रव्यानाश्रितत्वे सति गुणत्वात्। यो यदनाश्रितो गुणः स तदतिरिक्ताश्रितो भवति। यथा पृथिव्याद्यनाश्रितः शब्दः पृथिव्याद्यतिरिक्ताकाशाश्रित इति। तदेवं पृथिव्यादिव्यतिरिक्त आत्मा सिद्धः॥

[78c] स च सर्वत्र कार्योपलम्भाद्विभुः। परममहत्परिमाणवानित्यर्थः। विभुत्वान्नित्योऽसौ व्योमवत्। सुखादीनां वैचित्र्यात् प्रतिशरीरं भिन्नश्च॥

Translation—(a) Of these twelve soul is that which possesses the generality *soul-ness*. It is distinct from the body, sense-organs, etc; also different in each body, eternal and omnipresent. It is the object of perception by the mind (vide para 26 on p. 44). If there is any doubt (about the existence of a separate soul) it can be inferred by such reasons as the presence of special qualities like knowledge etc. The inference is like this. Knowledge etc. are verily qualities, because besides being non-eternal they are capable of being cognised by a single sense-organ only, like colour. Also qualities must subsist in some substance or other which they qualify. Here knowledge etc. are not the qualities of the five elements (earth, water etc.) as these qualities (subsisting in the soul) are perceived by the mind. Those qualities that subsist in the five elements are not perceived by the mind like colour, smell etc. They are also not qualities subsisting in space, time and mind (the other three substances) due to being special qualities. The qualities of space, time and mind like number etc. are not special ones; those that subsist in these three like number etc. are not (considered) special qualities as they are common to all the substances. Knowledge etc. are special qualities because they are such as are capable of being grasped by a single sense-organ like colour, and so they do not subsist in space, time and mind. Therefore some substance other than these eight (earth etc.) should be postulated as the substratum of knowledge etc. and that is the soul.

Translation—(b) The syllogism (for postulating soul as the ninth substance) which can be a negative or a positive one is as follows :—Knowledge etc. subsist in a substance other than the eight (earth etc. mentioned above), because they are qualities which do not belong to these eight. The negative व्याप्ति is this :—A quality that is *not* one which does not belong to these eight substances is *not* one which subsists in a substance other than the eight; e.g. colour etc. The positive व्याप्ति (for the same syllogism) can be stated thus :—that quality which does not subsist in one substance must subsist in any other different from the former; for instance sound which

does not belong to earth etc. is found to subsist in ether which is different from earth etc. In this manner soul is established as a substance distinct from earth etc.

Translation— (c) It is omnipresent because its effect is seen everywhere. By 'omnipresent' is meant that it has the greatest magnitude (i.e. is all-pervading). Being omnipresent it is eternal like ether. It is also different from body to body since the experience of pleasure and pain varies with each soul.

Notes—There would appear to be some incongruity, at least for the beginner, when a thing is defined as having its own generality, as in the definition of आत्मन् and in many cases below. The generality आत्मत्व is dependent on आत्मन् and so can be ascertained after आत्मन् is known. This definition therefore means that आत्मन् possesses a characteristic which differentiates it from all other similar and dis-similar things and this characteristic is what is being established by a series of inferences, as the fact of being the substratum of knowledge etc.—ज्ञानाश्रयत्वम्. How it becomes such a substratum is also proved by the same inference and after such a differentia is established it is found as a common one in many a जीवात्मन् and so it is accepted as the generality आत्मत्व. It should be remembered that आत्मन् here means only जीवात्मन् which the Naiyāyikas always differentiate from परमात्मन् or God. Some authors expressly divide आत्मन् into these two classes after defining it as the seat of knowledge. Cf. "ज्ञानाधिकरणमात्मा। स द्विविधः जीवात्मा परमात्मा चेति। तत्रेश्वरः सर्वज्ञः परमात्मा एक एव। जीवश्च प्रतिशरीरं भिन्नो विभुर्नित्यश्च।" (त. सं). Even when speaking of आत्मन् again under द्रव्य in para 91 below the author does not mention of परमात्मन् but only of जीवात्मन् to whom 14 qualities are ascribed. By knowledge etc. (बुद्ध्यादि) the author includes the other five as stated in G. N. S. इच्छा-द्वेष-प्रयत्न-सुख-दुःख-ज्ञानान्यात्मनो लिङ्गम् (I-1-10), meaning thereby that any one of these six qualities can serve as a लिङ्ग for the inference he has given. For the classification of qualities as विशेष and सामान्य ones vide notes under para 16, Part I. The author wants to contradict the Buddhists and Cārvākas who do not believe in आत्मन् by saying that the separate existence of the soul can be established

both by mental perception and by inference with both positive and negative व्याप्ति. The followers of रामानुज contend that आत्मन् is अणु i.e. with the least magnitude as opposed to the Naiyāyika stand that it is विभु i.e. having the greatest magnitude. The pluralistic realism of the Naiyāyika does not allow him to accede to the Advaitin's view that जीवात्मन् and परमात्मन् are identical. To emphasise all these disagreements with the opposing schools the author repeats in para 78 (c) what he has expressed in the earlier portion, happily without any arguments as in the case of अर्थापत्ति and अभाव.

2. **शरीरम्** [79] तस्य भोगायतनं शरीरम्। सुखदुःखान्यतरानुभवो भोगः। स च यदवच्छिन्न आत्मनि जायते तत् भोगायतनम्। तदेव शरीरम्। चेष्टाश्रयो वा शरीरम्। चेष्टा च हिताहितप्राप्तिपरिहारार्था क्रिया। न तु स्पन्दनमात्रम्।

Translation—The receptacle situated within which the soul enjoys its experiences is the body. Here भोग(=enjoyment) means experience of pleasure or pain. The soul enjoys such experiences only when it is limited by some receptacle and that is the body. Or, body can be defined as the sub-stratum of action. चेष्टा (action) here is not mere motion (स्पन्दन), but means such activity that is conducive to gain the desirable and to discard the un-desirable.

Notes—आत्मन् being omnipresent like ether, has contact everywhere; but pleasure or pain occuring anywhere is not felt by everyone. Only such pleasure or pain that affects one's body is felt by the soul inside that body, just as sound that comes in contact with one's auditory organ is all that one hears and not all sounds produced in ether. (cf. कर्णशष्कुल्यवच्छिन्नाकाश एव शब्दानुभवः। तद्वत् शरीरावच्छिन्नात्मन्येव भोगोत्पत्तिः।)

The intention of giving a second definition seems to be to conform to the N S. where गौतम defines body as 'चेष्टेन्द्रियार्थाश्रयः शरीरम्' (I. 1-11). The word चेष्टा has a limited sense as explained in the text.

The printed editions have the word अन्त्यावयवि between आयतनम् and शरीरम् in the above definition. Chennu Bhaṭṭa

does not appear to have it in his text but Gopinatha notices it saying that it is used to avoid the definition over-lapping into limbs of the body such as hands, feet etc.

3. **इन्द्रियम्** [80a] शरीरसंयुक्तं ज्ञानकरणमतीन्द्रियम् । 'अतीन्द्रियमिन्द्रियमित्युच्यमाने कालादेरपीन्द्रियत्वप्रसङ्गः । अत उक्तं ज्ञानकरणमिति । तथापीन्द्रियार्थसन्निकर्षेऽतिप्रसङ्गः । अत उक्तं शरीरसंयुक्तमिति । शरीरसंयुक्तं ज्ञानकरणमिन्द्रियमित्युच्यमाने आलोकादेरिन्द्रियत्वप्रसङ्गः । अत उक्तमतीन्द्रियमिति ।

[80b] तानि चेन्द्रियाणि षट्, घ्राण, रसन, चक्षुः, त्वक्, श्रोत्र, मनांसीति । तत्र गन्धोपलब्धिसाधनमिन्द्रियं घ्राणम् नासाग्रवर्ति । तच्च पार्थिवं गन्धवत्वात् घटवत् । गन्धवत्वं च ग्रन्धग्राहकत्वात् । यदिन्द्रियं रूपादिषु पञ्चसु मध्ये यं गुणं गृह्णाति तदिन्द्रियं तद्गुणसंयुक्तं, यथा चक्षू रूपग्राहकं रूपवत् ।

[80c] रसोपलब्धिसाधनमिन्द्रियं रसनं जिह्वाग्रवर्ति । तच्चाप्यं रसवत्वात् । रसवत्वं च रूपादिषु मध्ये रसस्यैवाभिव्यञ्जकत्वात् लालावत् ।

[80d] रूपोपलब्धिसाधनमिन्द्रियं चक्षुः । कृष्णताराग्रवर्ति । तच्च तैजसं रूपवत्वात् । रूपादिषु पञ्चसु मध्ये रूपस्यैवाभिव्यञ्जकत्वात् प्रदीपवत् ।

[80e] स्पर्शोपलब्धिसाधनमिन्द्रियं त्वक् । सर्वशरीरव्यापि । तत्तु वायवीयं स्पर्शवच्च, रूपादिषु पञ्चसु मध्ये स्पर्शस्यैवाभिव्यञ्जकत्वात् । अङ्गसङ्गिसलिलशैत्याभिव्यञ्जकव्यजनपवनवत् ।

[80f] शब्दोपलब्विसाधनमिन्द्रियं श्रोत्रम् । तच्च कर्णशष्कुल्यवच्छिन्नमाकाशमेव । न द्रव्यान्तरं शब्दगुणकत्वात् । तदपि शब्दग्राहकत्वात् । यदिन्द्रियं रूपादिषु पञ्चसु मध्ये यद्गुणग्राहकं तत्तद्गुणयुक्तं, यथा चक्षुरादि रूपादिग्राहकं रूपादियुक्तम् । शब्दग्राहकं च श्रोत्रम् । अतः शब्दगुणकम् ।

[80g] सुखाद्युपलब्धिसाधनमिन्द्रियं मनः । तच्चाणुपरिमाणं । हृदयान्तर्वर्ति ।

[80h] ननु चक्षुरादीन्द्रियसद्भावे किं प्रमाणम् । उच्यते । अनुमानमेव । तथाहि । रूपाद्युपलब्धयः करणसाध्याः क्रियात्वात्, छिदिक्रियावत् ॥

Translation—(80a) That which forms part of the body, which is the instrument of cognition and which is not perceptible by the sense-organs, constitutes इन्द्रिय or sense-organ. If it is defined as that which is not perceptible by the sense-organs, the definition would be so wide as to include time etc. and therefore the qualification 'which is the instrument of cognition' is added. Even then the definition overlaps 'sense-object-contact' and so the qualification 'which forms part of the body' is added. If it is defined as that which forms part of the body and which is an instrument of cognition (i.e. without the word अतीन्द्रिय) the definition would apply to light etc. and so the qualification अतीन्द्रिय is necessary.

(80b) These sense-organs are six in number, viz. nose, tongue, eye, skin, ear and mind. [As already explained on p. 49 these are the seats of the sense-organs]. Of these that which is the instrument for the cognition of smell is the olfactory sense-organ and it is situated at the tip of the nose. It belongs to the substance earth as it has smell like a jar. It has smell because it apprehends smell. (The general rule is that) that sense-organ which apprehends any quality out of the five, colour, taste, smell, touch and sound, is possessed of that quality as is observed in the case of the visual organ which apprehends colour and so possesses colour.

(80c) That sense-organ which apprehends taste is the gustatory one and it abides at the tip of the tongue. It belongs to the substance water as it has taste. That it has taste is proved by the fact that out of the five qualities colour etc. it apprehends only taste, like saliva.

(80d) That one which apprehends colour is the visual organ and it is located in the black pupil of the eye. It belongs to the substance light because it has colour. That it has colour is proved by the fact that out of the five qualities colour etc. it apprehends only colour like a lamp.

(80e) That sense-organ which apprehends touch is the tactile one. It exists all over the body (i.e. in the skin which covers all parts of the body). It belongs to the substance air as it has touch. That it has touch is proved by the fact that out of the five qualities colour etc. it apprehends only touch, like the wind from the fan, which manifests the cool touch of the water in contact with the body.

(80f) That which apprehends sound is the auditory organ. It is nothing else but ether limited by the tympanum. That it belongs to the substance ether is inferred from the fact of its possessing sound. That it has sound is proved by the fact that it apprehends only sound out of the five qualities colour etc. (The general rule as already mentioned under smell is that) that sense-organ which apprehends any one out of the five qualities colour etc. is possessed of that quality as seen in the visual and other organs which apprehend colour etc. The auditory sense apprehends sound and so it is possessed of sound.

(80g) That sense-organ which causes the apprehension of pleasure, pain etc. is the mind. It is atomic in size and is situated inside the heart.

(80h) What is the proof for the existence of these sense-organs ? The answer is inference only. It is like this. The cognitions of colour etc. are brought about only through certain instruments, because they are forms of action, like the action of cutting (which is brought about by the instrument axe. These instruments constitute the sense-organs).

4. **अर्थः** [81] अर्थाः षट् पदार्थाः । ते च द्रव्य-गुण-कर्म-सामान्य-त्रिशेष-समवायाः । प्रमाणादयो यद्यप्यत्रैवान्तर्भवन्ति तथापि प्रयोजन-वशाद्भेदेन कीर्तनम् ॥

Translation—Objects are the six categories; substance, quality, action, generality, speciality and inherence. Even though प्रमाण and the rest (as mentioned in G. N. S, I-1-1 vide p. 4) can be included in these six, they are all mentioned separately with a definite purpose.

Notes—These six objects are the six categories of कणाद mentioned in V. S. I-1-4, which encompass all conceivable things in the world. Knowledge or बुद्धि is only one of the 24 qualities according to him and प्रमाण's as causes for knowledge come under बुद्धि. The objects of knowledge, प्रमेय's, constitute these six पदार्थ's together with negation (अभाव) which came to be added as the seventh one as an after-thought (vide pp. 26-32). Gautama's classification of things into 16 categories is based on the notion that everything in the world depends on knowledge and so प्रमाण rightly finds first place in his scheme. Kaṇāda's classification is based on physical considerations and so knowledge and its instruments are accorded secondary treatment. This fact also keeps the two systems separate even after the epoch-making attempt of Gaṅgeśa to amalgamate the two into one तर्कशास्त्र. That both are complementary to each other is evident from the many borrowings between them. वात्स्यायन in his न्यायभाष्य gives expression to this idea in the following words at the very outset (vide his comments under I-1-1) :—

"तत्र संशयादीनां पृथग्वचनमनर्थकम् । संशयादयो यथासंभवं प्रमाणेषु प्रमेयेषु चान्तर्भवन्तो न व्यतिरिच्यन्त इति । सत्यमेवमेतत् । इमास्तु चतस्रो विद्याः पृथक्प्रस्थानाः प्राणभृतामनुग्रहायोपदिश्यन्ते । यासां चतुर्थीयमान्वीक्षिकी न्यायविद्या । तस्याः पृथक्प्रस्थानाः संशयादयः पदार्थाः । तेषां पृथग्वचनमन्तरेणाऽध्यात्मविद्यामात्रमियं स्यात्, यथोपनिषदः । तस्मात् संशयादिभिः पदार्थैः पृथक् प्रस्थाप्यन्ते ॥"

Translation—(Objection). "It is useless to mention संशय and the rest as separate categories. They all come under प्रमाण or प्रमेय as the case may be and so are not distinct from these two. (Answer). This is true. The four branches of learning [त्रयी, वार्ता, दण्डनीति and आन्वीक्षिकी, vide quotation in the introduction from the अर्थशास्त्र, which the भाष्यकार has in mind when he writes this] are distinct subjects propounded for the benefit of mankind. संशय and the rest are distinct topics coming under the fourth of these, आन्वीक्षिकी or न्यायविद्या. If these are not enumerated and explained separately from the rest this आन्वीक्षिकी would reduce itself to the science of the soul—अध्यात्मविद्या coming under त्रयी—just like the Upaniṣads.

Therefore संशय and the rest are explained separately in this Śāstra." Keśava Miśra's cryptic remark तथापि प्रयोजनवशाद् भेदेन कीर्तनम्' is evidently prompted by the above words of the भाष्यकार.

1. द्रव्यं [82] तत्र समवायिकारणं द्रव्यम् । गुणाश्रयो वा । तानि च द्रव्याणि पृथिव्यप्तेजोवाय्वाकाशकालदिगात्ममनाँसि नवैव ॥

Translation—Of these substance is that which is the inherent or material cause (of all things). It can also be defined as the sub-stratum of qualities. It consists of these nine only :—(1) पृथिवी = earth; (2) आपः = waters; (3) तेजस् = light; (4) वायुः = air; (5) आकाशः = ether; (6) कालः = time; (7) दिक् = space; (8) आत्मन् = soul and (9) मनस् = mind.

Notes—The two definitions of द्रव्य have been discussed earlier in paras 13 and 14 when explaining समवायिकारण.

1. पृथिवी [83] तत्र पृथिवीत्वसामान्यवती पृथिवी । काठिन्य-कोमलत्वाद्यवयवसंयोगविशेषेण युक्ता । घ्राण, शरीर, मृत्पिण्डपाषाण-वृक्षादिरूपा । रूप-रस-गन्ध-स्पर्श-संख्या-संयोग-विभाग-परत्व-अपरत्व-द्रवत्व-संस्कारवती । सा च द्विविधा, नित्याऽनित्या च । नित्या परमाणुरूपा । अनित्या कार्यरूपा । द्विविधाया अपि रूपरसगन्ध-स्पर्शा अनित्याः पाकजाश्च । पाकस्तेजस्संयोगः । तेन पृथिव्याः पूर्वरूपादयो नश्यन्ति, अन्ये जन्यन्ते, इति पाकजाः ॥

Translation—Out of these nine earth is that which possesses the generality *'earth-ness'*. It consists of a peculiar aggregate of parts, sometimes hard, soft etc. It exists in the forms of nose (sense-organ), body, and such things as clay, stone, trees etc. It possesses the 14 qualities; colour, taste, smell, touch, number, dimension, separateness, conjunction, disjunction, remoteness, proximity, weight, fluidity and tendency. It is of two kinds, eternal and non-eternal. The eternal variety consists of atoms and the non-eternal is of the form of various products. In both kinds the qualities colour, taste, smell and touch are non-eternal and caused by baking (पाक). पाक is due to application of heat. Through this the former colour etc. in earth are destroyed and (in their places) new ones are created.

Notes—For the definition through the generality 'earth-ness' see the remarks under para (78a). Another definition more commonly used is 'that which has smell', गन्धवती पृथिवी. The suffix मत् or वत् in such cases shows that the quality inheres in the substance. All important points about the Vaiśeṣika categories have already been explained in Part I vide pp. 26-32.

By baking, पाक, change occurs only in the four qualities, colour, taste, smell and touch and that too only in the substance earth. This is called पाकजोत्पत्ति and was originally propounded by the Vaiśeṣikas and later accepted by the Naiyāyikas with some difference in the exposition of the process. The Vaiśeṣikas hold that when a raw pot is placed in the kiln for baking the heat causes the whole pot to disintegrate to its ultimate parts, the atoms, which then lose their original colour, taste etc. Again due to heat new colour etc. originate in the atoms which in turn join up to form the new baked pot with changed colour, taste etc. Because the change, according to them, takes place not on the pot as a whole, but from the ultimate atoms (पीलु) the Vaiśeṣika theory is called पीलुपाकवाद. The Naiyāyikas on the other hand say that the composite whole is not disintegrated but only the original colour etc. are replaced by new ones due to the special type of heating—विजातीयतेजःसंयोग—and there is no reason to suppose that the whole disintegrates and that the atoms begin afresh to make the baked pot. Moreover on taking out the pot from the kiln we get the impression that this is the same one that was kept in it for baking. Their theory is named पिठरपाकवाद (पिठर meaning here the whole lot).

2. आपः [84] अप्त्वसामान्ययुक्ता आपः । रसनेन्द्रिय-शरीर-सरित्-समुद्र-हिम-करकादिरूपाः । गन्धवर्जस्नेहयुक्तपूर्वोक्तगुण-वत्यः । नित्या अनित्याश्च । नित्यानां रूपादयो नित्याः । अनित्यानामनित्या एव ।

Translation—Water is that which has the generality *'waterness'*. [Another definition is शीतस्पर्शवत्य आपः—that which has cool touch]. It consists of the sense of taste, water-body, rivers, oceans, snow, hail, etc. It also has the 14 qualities

mentioned for earth, but excluding smell and including viscidity (स्नेह). It is also of two kinds, eternal and non-eternal. Colour etc. abiding in eternal water atoms are eternal and those in other waters non-eternal.

3. **तेजः** [85] तेजस्त्वसामान्यवत्तेजः। चक्षुः-शरीर-सवितृ-सुवर्ण-वह्नि-विद्युदादि प्रभेदम्। रूप-स्पर्श-संख्या-परिमाण-पृथक्त्व-संयोग-विभाग-परत्व-अपरत्व-द्रवत्व-संस्कारवत्। नित्यमनित्यञ्च पूर्ववत्। तच्चतुर्विधं; उद्भूतरूपस्पर्शं, अनुद्भूतरूपस्पर्शं, अनुद्भूतरूपोद्भूतस्पर्शं, उद्भूतरूपानुद्भूतस्पर्शं चेति। उद्भूतरूपस्पर्शं यथा सौरादितेजः पिण्डीभूतं वह्न्यादिकं च। सुवर्णं तूद्भूताभिभूतरूपस्पर्शं नानुद्भूतरूपस्पर्शम्। अनुद्भूतरूपत्वेऽचाक्षुषं स्यात्। अनुद्भूतस्पर्शत्वे त्वचा न गृह्येत। अभिभवस्तु बलवत्सजातीयेन पार्थिवरूपेण स्पर्शेन च कृतः। अनुद्भूतरूप-स्पर्शं तेजो यथा चक्षुरिन्द्रियम्। अनुद्भूतरूपोद्भूतस्पर्शं यथा तप्तवारिस्थं तेजः। उद्भूतरूपानुद्भूतस्पर्शं यथा प्रदीपप्रभामण्डलम्।

Translation—Light is that which has the generality '*lightness*'. It consists of the visual sense-organ, light-body, the sun, gold, fire, lightning and similar things. It has eleven qualities: colour, touch, number, dimension, separateness, conjunction, disjunction, remoteness, proximity, liquidity and tendency (the variety called वेग or velocity). Its division into eternal and non-eternal is similar to that of water. It is of four kinds :—(1) light in which both colour and touch are manifested; (2) that in which both are unmanifested; (3) that in which colour is unmanifested and touch is manifested; and (4) that in which colour is manifested while touch is unmanifested. The first variety (both manifested) is seen in such things as light of the sun, masses of fire, etc. Gold has its colour and touch manifested but suppressed. Its colour and touch are not of the unmanifested type. If its colour is unmanifested it would not be perceived by the eye. If its touch is unmanifested it would not be felt by the skin. Suppression in this case is brought about by the homogeneous colour and touch of earth particles mixed up with it. Light in which both colour and touch are unmanifested occurs in the visual sense-organ. Light

in which the first is un-manifested and the second manifested occurs in the 'light' (= heat) in heated water. Light of the fourth variety is that seen in the halo around a brightly burning lamp (and similar things).

Notes—A qualitative definition of light is उष्णस्पर्शवत्तेजः. The classification given above (i.e. four varieties) is according to the न्यायभाष्य. All the printed editions except that of आचार्य विश्वेश्वर have another sentence in the text after विद्युदादिप्रभेदम्—'दिव्यं, भौमं, औदर्यं, आकरजञ्च'—but there is no connection for it with either the preceding or succeeding sentences. Ch : Bh : s comments here are clear. "तत्तेजश्चतुर्विधम्, भौमं, दिव्यमौदर्यमाकरजं चेति। तत्र भौमं काष्ठेन्धनप्रभवं प्रसिद्धम्। दिव्यं सौरविद्युदादि। अशितपीतपरिपाकहेतुकमौदर्यम्। आकरजं सुवर्णादि। इति प्रशस्तपादभाष्योक्तचातुर्विध्यप्रतिपादको ग्रन्थः क्वचित्पुस्तकेऽस्ति, न सर्वत्र ॥" After this he introduces the four-fold division as in the text here saying "अधुना भङ्ग्यन्तरेण न्यायभाष्योक्त चातुर्विध्यमभिधत्त उद्भूतेति ॥"

The Naiyāyikas bring out a negative inference to establish the inclusion of gold under this category 'light'. सुवर्णं तैजसं, असति प्रतिबन्धके अत्यन्तानलसंयोगेऽप्यनुच्छिद्यमानद्रवत्ववत्वात्, यन्नैवं तन्नैवं यथा घटः–, i.e. gold is a form of तेजस्, because when there is no counteracting influence (or impediment) it does not lose its liquidity even under the application of intense heat; that which has not this हेतु does not belong to तेजस् (व्यतिरेकव्याप्ति). To account for its yellow colour, cold touch, and weight it is postulated that these are due to the earth particles adhering to it, which suppress its natural colour and touch (bright white and hot touch) and also lend it weight. A modern student of science will hardly agree to this. The Mīmāmsakas hold that gold and other metals quarried from mines (आकरज) constitute a separate substance other than these nine. The more modern among the Naiyāyikas (i.e. the followers of रघुनाथशिरोमणि of Nadia) include gold and other metals under 'earth'.

4. **वायुः** [86] वायुत्वाभिसम्बन्धवान् वायुः। त्वगिन्द्रिय-शरीर-वात-प्राणादिभेदभिन्नः। स्पर्श-संख्या-परिमाण-पृथक्त्व-संयोग-विभाग परत्व-अपरत्व-वेगवान्। स च स्पर्शानुमेयः। तथाहि। योऽयं वायौ वात्यनुष्णाशीतस्पर्श उपलभ्यते स गुणत्वात् गुणिनमन्तरेणाऽनुप-

पद्यमानो गुणिनमनुमापयति । गुणी च वायुरेव । पृथिव्याद्यनुपलब्धेः । पृथिवीवायुव्यतिरेकेण अनुष्णाशीतस्पर्शाभावात् । स च द्विविधो नित्याऽनित्यभेदात् । नित्यः परमाणुरूपः । अनित्यः कार्यरूपः ॥

Translation—Air is that substance which is connected with '*air-ness*' (i.e. which possesses this generality). It consists of the tactile sense-organ, air-body, wind, breath of animals, etc. It has the nine qualities, touch, number, dimension, separateness, conjunction, disjunction, remoteness, proximity and velocity (a variety of संस्कार). Air is to be inferred from its touch. It is like this. When wind blows a touch which is neither hot nor cold is felt. This touch being a quality cannot have an existence separate from the thing it qualifies and so causes the qualified thing to be inferred. This qualified thing is the substance air, as earth and other substances do not become this substratum. Moreover this touch which is neither hot nor cold does not abide in substances other than earth and air. Air is of two kinds, eternal and non-eternal; the former consists of air-atoms and the latter the products (wind, breath etc).

Notes—Though there is a slight change in the wording of the definition of air, it is the same as saying वायुत्वसामान्यवान् वायुः as in the previous definitions. Another useful definition is रूपरहितस्पर्शवान् वायुः. Because it is not perceptible by the eye the attribute रूपरहित is used.

There is some difference of opinion between the ancient and modern Naiyāyikas as to whether air is perceptible or not. The ancients say that air is not perceptible even by the tactile sense, but can only be inferred. This inference is what is explained in the text. The controversy centres round the question whether उद्भूतरूप should be a necessary condition for *all* प्रत्यक्ष or only for चाक्षुषप्रत्यक्ष (vide p. 50). The moderners hold the latter view saying that only उद्भूतस्पर्श is necessary for tactile perception and not उद्भूतरूप. Our author apparently holds the ancient view and so gives an inference to establish it, similar to that in the case of आत्मन्.

These four substances have some sort of similarity in their being eternal and non-eternal, the former consisting of

atoms and the latter of the products. The non-eternal variety of each is again classified as शरीर, इन्द्रिय and विषय. Keśava Miśra has not expressly stated this division but has hinted it when he mentions what each substance consists of. It is only these four that are capable of being produced (जन्य or कार्य) and so the author discusses in the next two paras the process of their production and destruction—उत्पत्ति-विनाशौ.

कार्यस्योत्पत्तिक्रमः [87] तत्र पृथिव्यादीनां चतुर्णामुत्पत्ति-विनाशक्रमः कथ्यते। द्वयोः परमाण्वोः क्रियया संयोगे सति द्वणुकमुत्पद्यते। तस्य परमाणू समवायिकारणम्। तत्संयोगोऽसमवायिकारणम्। अदृष्टादि निमित्तकारणम्। तत्र त्रयाणां द्वणुकानां क्रियया संयोगे सति त्र्यणुकमुत्पद्यते। तस्य द्वणुकानि समवायिकारणम्। शेषं पूर्ववत्। एवं त्र्यणुकैश्चतुरणुकम्। चतुरणुकैश्चापरं स्थूलतरम्। तैरपरं स्थूलतमम्। एवं क्रमेण महती पृथिवी, महत्य आपः, महत्तेजः, महान् वायुश्चोत्पद्यते। कार्यगतरूपादयः स्वाश्रयकारणगतेभ्यो रूपादिभ्यो जायन्ते। कारणगुणा हि कार्यगुणानारभन्त इति न्यायात्॥

Translation—Now the processes of production and destruction of the four producible substances beginning with earth are being described. When two atoms combine as a result of motion in them a dyad is formed. The two atoms constitute its inherent cause; their conjunction the non-inherent cause and 'fate' etc. the general cause. Again due to motion in them three dyads join together to form a triad. The dyads constitute its inherent cause and the other two causes are the same as in the case of the dyad. Similarly from the triads a tertiary is produced; from the tertiaries larger things and from these still larger ones are produced. In this manner are produced the great 'earth', the great 'waters', the great 'light' and the great 'air'. The colour and other qualities in these products are produced from the colour etc. of their inherent causes which constitute their substrata, according to the general rule that 'the qualities in the inherent cause generate the qualities in the product.'

उत्पन्नस्य विनाशः [88] एवमुत्पन्नस्य रूपादिमतः कार्यद्रव्यस्य घटादेरवयवेषु कपालादिषु नोदनादभिघाताद्वा क्रिया जायते। तया विभागः। तेनाऽवयव्यारम्भकस्याऽसमवायिकारण भतस्य संयोगस्य नाशः क्रियते। ततः कार्यद्रव्यस्याऽवयविनो घटादेर्नाशः। एतेनाऽसमवायिकारणनाशे द्रव्यनाशो दर्शितः। क्वचित्समवायिकारणनाशे द्रव्यनाशो यथा पूर्वोक्तस्यैव पृथिव्यादेः संहारे संजिहीर्षोर्महेश्वरस्य संजिहीर्षा जायते। ततो द्व्यणुकारम्भकेषु परमाणुषु क्रिया। तया विभागः। ततस्तयोः संयोगनाशे सति द्व्यणुकेषु नष्टेषु स्वाश्रयनाशात् त्र्यणुकादिनाशः। एवं क्रमेण पृथिव्यादिनाशः। यथा वा तन्तूनां नाशेन पटनाशः। तद्गतरूपादीनां स्वाश्रयनाशेनैव नाशः। अन्यत्र तु सत्येवाश्रये विरोधिगुणप्रादुर्भावेन विनाशः। यथा पाकेन घटादे रूपनाश इति॥

Translation—When a product like a jar etc. is thus produced with colour and other qualities, and when motion starts in the component parts of the jar etc. as a result of a jolt or a blow, this motion causes the disjunction of the component parts, which in its turn destroys the conjunction of the parts, which is the non-inherent cause of the composite whole. Thus is caused the destruction of the product, the composite jar etc. From this it is seen how a substance is destroyed when its non-inherent cause is destroyed. In some cases the destruction of a substance is caused by that of its inherent cause. For instance when the Almighty desires the dissolution of the aforesaid earth etc., this desire brings about motion in the atoms comprising the dyads, which in its turn causes the disjunction of the atoms. Due to this the conjunction of the two atoms is lost and so the dyad is destroyed. With the destruction of its substratum, the dyads, the triad is destroyed and in this order the earth and other substances get destroyed. Another instance is seen in the destruction of the cloth when the threads get destroyed. The destruction of colour and other qualities of the products is brought about by that of their substrata. In some cases such destruction (of qualities) takes place even when the substratum is there, due to the appearance of opposing qualities as in the case of jar etc.

during baking (when the original qualities are replaced by new ones).

Notes—In para 87 the evolution of things from atoms is described. While a dyad is formed out of two atoms a triad requires three dyads as its components and not two. Why it is so will be explained in the subsequent paragraphs after the existence of atoms is established. In the text of para 87 all the printed editions read एवं त्र्यणुकैश्चतुर्भिश्चतुरणुकम्; but the word चतुर्भिः seems to be out of place (even wrong) for the reason to be stated by the author himself in para 90 below.

In para 88 the dissolution or destruction of produced things is explained in two ways, by the destruction of either the non-inherent cause or of the inherent one. The first view is that of the modern Naiyāyikas and the second that of the older school. According to the latter, the ultimate atoms get disjointed first and due to this the dyad gets destroyed. Only in this case the destruction of the non-inherent cause (अणुद्वय-संयोग vide para 87) acts as cause for that of the effect (the dyad here). From the triad onwards destruction is brought about by that of the inherent cause which is invariably the component parts. The moderners for the sake of simplicity (लाघव) want one uniform rule for all and say that the destruction of the non-inherent cause leads to that of the effect as is seen in the case of a jar—कपालद्वयसंयोगनाशे घटनाशः. Either way the view is based on the assumption that destruction proceeds from cause to effect. While refuting this N. V. view in his commentary on ब्रह्मसूत्र II–3–14 the great Śankarācārya gives an apt comparison by saying that it is absurd and impossible to pull down the foundation of a building without removing the roof, walls and other overstructures.

Next the author explains the conception of atoms or the atomic theory of the ancients which was first propounded in the V. S.

परमाणुः [89] किं पुनः परमाणुसद्भावे प्रमाणम् ? उच्यते । यदिदं जालसूर्यमरीचिस्थं सर्वतः सूक्ष्मतमं रज उपलभ्यते तत् स्वल्प-परिमाणद्रव्यारब्धं, कार्यद्रव्यत्वात् घटवत् । तच्च द्रव्यं कार्यमेव, महद्द्रव्यारम्भकस्य कार्यत्वनियमात् । तदेवं द्व्यणुकाख्यं द्रव्यं सिद्धम् ।

तदपि स्वल्पपरिमाणसमवायिकारणारब्धम् । कार्यद्रव्यत्वात्, घटवत् । यस्तु द्व्यणुकारम्भकः स एव परमाणुः । स चाऽनारब्ध एवेति । ननु कार्यद्रव्यारम्भकस्य कार्यद्रव्यत्वाऽव्यभिचारात् तस्य कथमनारब्धत्वम् ? उच्यते । अनन्तकार्यपरम्परादोषप्रसंगात् । तथा च सति अनन्त-द्रव्यारब्धत्वाविशेषण मेरुसर्षपयोरपि तुल्यपरिमाणत्वप्रसङ्गः । तस्मादनारब्ध एव परमाणुः ॥

Translation—What is the authority for (accepting) the existence of atoms ? This is being explained. That very minute particle of dust seen (floating) in a ray of sun-light that trickles through a slit or hole, is made up of substances with smaller dimension, because it is a produced thing like a jar. That substance (with smaller dimension) is also a product (consisting of component parts) in accordance with the general rule that 'a thing which produces another of greater magnitude should itself be a product'. This establishes the thing called dyad. This dyad is also made up of things having smaller dimension which constitute its inherent cause, because it is a product like a jar. That which makes up this dyad is what is called an atom; and it is not made up of further component parts. (Objection). Having accepted the general rule that a thing which produces another must itself be a product, how is it that the atom (which produces the dyad) is itself not composed of smaller parts ? (Answer). It is liket his. If we accept the objector's view it would lead to an endless series of effects and causes. If this latter position were to be agreed to it will lead to the (absurd) conclusion that the (great) mountain Meru and the (minute) mustard seed have equal dimensions (and so are equal in size), because both are made up of an endless number of component parts. Therefore it has to be accepted that the atom is not composed of still smaller parts.

Notes—The course of reasoning behind the N. V. atomic hypothesis may be summarised as follows. Firstly from actual observation it is seen that for visual perception substances must have a minimum dimension (परिमाण) called महत्त्व (largeness). This महत्त्व and its counterpart अणुत्व (smallness) vary between two extreme limits, the highest and the lowest.

The highest limit is परममहत्त्व ascribed to all-pervading substances such as ether, time, etc. The minimum महत्त्व necessary to make a thing visible is that observed in the dust particle in a sun-beam and so this particle is assumed to be the smallest thing visible to the naked eye. Similarly the lowest limit of smallness (अणुत्व) is परमाणुत्व also named as पारिमाण्डल्य. It is also an established fact that all products are composed of component parts (सावयव). With these premises it is first inferred that the sun-beam-dust-particle is composed of smaller component parts. The syllogism stated in the text can be expressed in another form as well—जालसूर्यमरीचिस्थं रजः सावयवं, चाक्षुषत्वात्, घटवत् । This particle is named as त्रसरेणु or त्र्यणुक, and its component parts are called द्व्यणुक or dyad. This dyad is not visible as it lacks महत्त्व and so has only अणुत्व. All the same it is capable of producing a substance with महत्त्व, the त्र्यणुक mentioned above. On this basis it is again inferred that the dyad is also made up of component parts, just like the two halves of a jar or the threads of a cloth. [In the second inference the example given in the text is घटवत्. It would have been more apt and direct if it had been mentioned as कपालवत्]. The component parts of a dyad being established in this manner, they are named परमाणु with the lowest limit of अणुत्व—पारिमाण्डल्य. The same reasoning used in the case of the dyad can be extended to this atom also, but then it will lead to endless regression leading to no definite conclusion. The extreme lower limit of dimension can never be reached with the result that the dimensions of the products will become incomparable. This will lead to equating a mountain with a tiny mustard seed in size as both are made up of innumerable component parts and there is no standard for measuring dimension. So a limit is placed at the component parts of the dyad, the atoms, as it meets with the logical needs of the Naiyāyikas. So the atoms are not divisible into smaller component parts and for that reason eternal. Even in modern science matter is indestructible and can only be transformed.

This raises another question which is being discussed in the next para.

त्र्यणुकस्य महत्वम् [90] द्व्यणुकन्तु द्वाभ्यामेव परमाणुभ्यामारभ्यते । एकस्याऽनारम्भकत्वात् । त्र्यादिकल्पनायां प्रमाणा-

भावात् । त्र्यणुकन्तु त्रिभिरेव द्व्यणुकाभ्यामारभ्यते । एकस्याऽनारम्भकत्वात् । द्वाभ्यामारम्भे कार्यगुणमहत्वानुपपत्तिप्रसङ्गात् । कार्ये हि महत्वं कारणमहत्वाद्वा कारणबहुत्वाद्वा । तत्र प्रथमस्याऽसम्भवाच्चरममेषितव्यम् । न च चतुरादिकल्पनायां प्रमाणमस्ति । त्रिभिरेव महत्वारम्भोपपत्तेरिति ॥

Translation—The dyad is made-up of two atoms only as a single one cannot begin a product and there are no grounds to postulate more than two. A triad however is composed of three dyads as one is unproductive (as mentioned above) and two do not account for the greater dimension महत्व seen in it. This is because of the general rule that the greater dimension in the product is caused either (1) by such a dimension in its component parts, the inherent cause, or (2) by the greater number of such parts. In the case of the triad the first cause is impossible (as the dyads have only अणुत्व and not महत्व) and therefore the second cause, (greater number of the parts), should be resorted to. Since three dyads are considered sufficient to produce this greater dimension (in the triad) there are no grounds to stipulate more than three.*

Notes—In para 87 it has been mentioned that two atoms join together to form a dyad and three dyads are required to make a triad. The question naturally arises how this number three has been arrived and why not two. In this connection the general rule mentioned in that para—कारणगुणाः कार्यगुणानारभन्ते—may be recalled. According to this the dimension महत्व in the triad is caused by the dimension in its inherent cause, the dyad. But the latter has only अणुपरिमाण and it can transmit to the triad only that dimension which may be of a higher degree as per the rule परिमाणानां स्वसजातीयस्वोत्कृष्टपरिमाणारम्भकत्वनियमः. The application of this rule would lead to the result that the dimensions in dyads and triads should be of a higher degree of अणुत्व (i.e. they should be further smaller than the atom). This is contrary to experience

* There is an oft-quoted ancient verse in this connection :—

जालसूर्यमरीचिस्थं यत्सूक्ष्मं दृश्यते रजः ।
तस्य षष्ठतमो भागः परमाणुर्निगद्यते ॥

as we see the triad as having **महत्व**. To avoid this discrepancy the dyad and triad are exempted from the above rule and in their two cases the *number* of the component parts is the cause for their dimensions. So to account for the difference in the dimensions of a dyad and a triad there should be a greater number of component parts in the triad than in the dyad. Since the number of parts in a dyad is two, the next higher number three is postulated as the minimum number of parts to produce **महत्व** in the triad. As three satisfies the logical requirement in this case there is no necessity to think of a higher number. In the case of products greater than the triad the above mentioned rule (**परिमाणानाम्** etc.) can apply as it is and there is no necessity to stipulate or restrict the number of the component parts. (Cf. **चतुरादिकल्पनं निष्प्रमाणकम् । इतः परमनियम इत्यर्थः**–Ch. Bh.). With this reasoning it will be found that the addition of the word **चतुर्भिः** in the sentence **'एवं त्र्यणुकैश्चतुरणिकम्'** in para 87 is not warranted (as already mentioned in the notes under that para).

5. **आकाशम्** [91] शब्दगुणमाकाशम् । शब्द-संख्या-परिमाण-पृथक्त्व-संयोग-विभागवत् । एकं, विभु, नित्यं, शब्दलिङ्गकं च । शब्दलिङ्गकत्वमस्य कथम् ; परिशेषात् । तथाहि । शब्दस्तावद्विशेषगुणः, सामान्यवत्वे सति अस्मदादिबाह्यैकेन्द्रियग्राह्यत्वात्, रूपादिवत् । गुणश्च गुण्याश्रित एव । न चास्य पृथिव्यादिचतुष्टयमात्मा वा गुणी भवितुमर्हति । श्रोत्रग्राह्यत्वाच्छब्दस्य । ये पृथिव्यादीनां गुणा न ते श्रोत्रेन्द्रियेण गृह्यन्ते, यथा रूपादयः । शब्दस्तु श्रोत्रेण गृह्यते । नापि दिक्कालमनसां गुणः । विशेषगुणत्वात् । अत एभ्योऽष्टभ्योऽतिरिक्तः शब्दस्य गुणी एषितव्यः । स एव आकाश इति । स चैकः । भेदे प्रमाणाभावात् । एकत्वेनैवोपपत्तेः । एकत्वादाकाशत्वं नाम सामान्यमाकाशे न विद्यते । सामान्यस्यानेकवृत्तित्वात् । विभु चाकाशम् । परममहत्परिमाणवदित्यर्थः । सर्वत्र तत्कार्योपलब्धेः । अत एव विभुत्वान्नित्यमिति ॥

Translation—Ether is the substance which has sound as its distinctive quality. The qualities sound, number, dimension, separateness, conjunction and disjunction abide in it. It is one, all-pervading, eternal and inferrable from the reason of

having sound. It is inferred from this reason by a type of inference called परिशेष, a kind of elimination. It is like this. Sound is a special quality, because while having a generality it is capable of being grasped by a single external sense-organ existing in living beings like us, as in the case of colour etc. Being a quality it must subsist in a qualified substance. This substance cannot be anyone out of earth, water, light, air, and soul as sound is grasped by the ear. The qualities abiding in these five are not cognised by the ear, as is the case with colour etc. and sound is grasped by the ear. Nor is it a quality of time, space or mind as sound is a special quality. For these reasons a qualified substance other than these eight should be accepted as the substratum of sound. This substance is what is called ether. It is only one as there is no proof to suppose different varieties of it. Also a single ether satisfies all (logical) purposes. Being one there is no generality, आकाशत्व, in it as any generality will have to be observed as existing in many similar things. It is all-pervading, which means that it has the greatest dimension, because its effect is felt everywhere. On that account, i.e. being all-pervading, it is eternal also.

Notes—परिशेषानुमान is explained by Ch. Bh. as प्रसक्तप्रतिषेधेऽन्यत्राप्रसङ्गात् परिशिष्यमाणे सम्प्रत्ययः परिशेषः.* When the existence of something is suspected in a number of things and when it is proved that it could not exist in some of these, the knowledge that it should exist in the remaining thing (or things), constitutes परिशेष. It is a process of elimination used earlier also, in the case of आत्मन् and वायु. शब्द as a गुण must exist in one or more of the nine द्रव्य's. Having established this search for its substratum begins; and for reasons stated in the text the eight द्रव्य's, earth, etc, are eliminated. Thus the remaining one, ether, is determined as its substratum. That आकाशत्व cannot be a generality, सामान्य, has been explained under para 11, p. 18.

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* A editions have this sentence as part of K. M's. text; but B rightly omits it.

6. कालः [92] कालोऽपि दिग्विपरीतपरत्वाऽपरत्वानुमेयः । संख्या-परिमाण-पृथक्त्व-संयोग-विभागवान् । एको नित्यो विभुश्च । कथमस्य दिग्विपरीतपरत्वाऽपरत्वानुमेयत्वम् ? उच्यते । सन्निहिते वृद्धे सन्निधानादपरत्वार्हे परत्वं प्रतीयते । व्यवहिते यूनि व्यवधानात् परत्वार्हे तद्विपरीतमपरत्वम् । तदिदं तत्तद्विपरीतं परत्वमपरत्वञ्च कार्यं तत्कारणस्य दिगादेरसम्भवात् कालमेव कारणमनुमापयति । स चैकोऽपि वर्तमानातीतभविष्यत्क्रियोपाधिवशात् वर्तमानादिव्यपदेशं भजते । पुरुष इव पच्यादिक्रियोपाधिवशात् पाचकपाठकादिव्यपदेशम् । नित्यत्व-विभुत्वे चास्य पूर्ववत् ॥

Translation—Time (as a substance) is to be inferred from (the notions of) remoteness and proximity which are contrary to those created by space. It has the qualities number, dimension, separateness, conjunction and disjunction (besides remoteness and proximity). It is one, eternal and all-pervading. How it is to be inferred from the notions of remoteness and proximity contrary to those of space, is being explained. When an old man is standing near us we ought to get the notion of his proximity; but actually the notion of remoteness (in age) as opposed to proximity (in space) is what arises in our minds. Similarly a youth at a far-off place creates the contrary notion of proximity (in age). These contrary notions of remoteness and proximity should be caused by something other than space, and thus lead us to infer the substance *time* as its cause. Though time is one it is spoken of as present, past and future due to the limitations (or circumstances) caused by the actions in these three stages of time, just as the same person is called a cook when he cooks, a reader when he reads and some other when he is engaged in other actions. That time is eternal and all-pervading is to be understood as in the case of ether.

7. दिक् [93] कालविपरीतपरत्वाऽपरत्वानुमेया दिक् । एका, नित्या, विभ्वी च । संख्या-परिमाण-पृथकत्व-संयोग-विभाग-गुणवती । पूर्वादिप्रत्ययैरनुमेया, तेषामन्यनिमित्तासंभवात् । पूर्वस्मिन् पश्चिमे वा देशे स्थितिस्य वस्तुनस्तादवस्थ्यात् । सा चैकापि सवितुस्तत्तद्देश-संयोगोपाधिवशात् प्राच्यादिसंज्ञां लभते ।

Translation—Space (as a substance) is to be inferred from the notions of remoteness and proximity contrary to those caused by time. It is one, eternal and all-pervading. It has the qualities number, dimension, separateness, conjunction and disjunction (besides remoteness and proximity). It is inferred from the notions of the directions, east, west, etc; because such notions cannot be caused by any other substance. This is gathered from the fact that a thing situated in any direction east, west etc. (with respect to some fixed entity) remains in the same direction (without change of direction). Though only one it is spoken of as east, west, etc, due to the limitation caused by the contact of the sun with those spaces (i.e. the notion of east, west, etc. at any place is determined by the apparent position of the sun at that place).

Notes—Time and space are defined in a more useful way in the B. P. of विश्वनाथः—

> जन्यानां जनकः कालो जगतामाश्रयो मतः । ।45(b)
> परत्वापरत्वधीहेतुः, क्षणादिः स्यादुपाधितः ।
> दूरान्तिकादिधीहेतुरेका नित्या दिगुच्यते ॥ 46
> उपाधिभेदादेकापि प्राच्यादि व्यपदेशभाक् । 47(a)

The inferences mentioned in the text for time and space may be stated thus :—कालिकदैशिक परत्वापरत्वे असमवायिकारणजन्ये, भावकार्यत्वात्, घटवत्. This non-inherent cause can be found by a process of elimination (परिशेष) as nothing but काल-दिक् पिण्ड संयोग as only a quality can be a non-inherent cause. Apart from the notions of old and young or past, present etc., in the case of time, and of distance and nearness or of east, west and other directions, in the case of space, these two are not capable of producing anything, though they are causes in general for all sorts of products. Another subtle, yet important, difference between the two is stated as follows :— नियतोपाध्युन्नायकः कालः । अनियतोपाध्युन्नायिका दिक् । It means that the relation of time with respect to an event or object is always constant while that of space is varying. A thing of the past or future time remains the same for all at present, while the direction of a place or thing varies with the direction from which it is observed. An example would make the idea clearer. The Nirvāṇa of Buddha happened 25 centuries ago.

This event relates to past time and will remain so for ever. That a solar eclipse will occur in February 1999 will remain a future event till that date. But with regard to space it is not so fixed. The Himalayas are to the north of India but south of Tibet, east of Iran but west of Hong Kong; i.e. the direction varies with the direction of the observer. A thing to one's right or left can change to left or right when the thing or the observer changes position. Another point of difference between the two is that while divisions of time are determined by the evolution or dissolution of things, those of space are determined by the greater or smaller number of contacts with objects that intervene between two spots. This is expressed in Sanskrit as जन्यमात्रं कालोपाधिः । मूर्तमात्रं दिगुपाधिः । This again is due to the fact that the divisions of time are based on the movements of the sun while those of space have no such connection. It will be of interest to note that रघुनाथशिरोमणि of Nadia tried to explain time and space as only certain phases of the Ommipotence of ईश्वर or आत्मन्; but this has not found favour with the later Naiyāyikas.

8. आत्मन् [91] आत्मत्वसामान्यवानात्मा । सुखदुःखादि-वैचित्र्यात् प्रतिशरीरं भिन्नः । स चोक्त एव । तस्य सामान्यगुणाः पञ्च, बुद्धादयो नव विशेषगुणाः । नित्यत्वविभुत्वे पूर्ववत् ।

Translation—Soul is that which has the generality *soul-ness*. Due to the differences in the experience of pleasure, pain etc. it is different from body to body. It has been explained earlier. It has five general qualities beginning with number and nine special ones beginning with knowledge. Its eternality and omnipresence are similar to the previous substances, (ether, time and space).

Notes—आत्मन् has already been explained as the first प्रमेय under para 77. Why this and many other things are repeated under different headings has been explained by the author himself in the last para of the book.

9. मनः [95] मनस्त्वाभिसंबन्धवन्मनः । अणु, आत्मसंयोगि, अन्तरिन्द्रियं, सुखाद्युपलब्धिकारणं, नित्यं च । संख्याद्यष्टगुणवत् । तत्संयोगेन बाह्येन्द्रियमर्थग्राहकम् । अत एव सर्वोपलब्धिसाधनम् ।

तच्च न प्रत्यक्षम् । अपि त्वनुमानगम्यम् । तथाहि । सुखाद्युपलब्धयश्चक्षुराद्यतिरिक्तकरणसाध्याः । असत्स्वपि चक्षुरादिषु जायमानत्वात् । यथा कुठारं विनोत्पद्यमाना पचनक्रिया तदतिरिक्तवह्न्यादिकरणसाध्या । यच्च करणं तन्मनः । तच्चाणुपरिमाणम् । इति द्रव्याण्युक्तानि ।

Translation—Mind is that substance which has the generality *mind-ness*. It is atomic (in size) and is always connected with the soul (except when in sleep). It is an internal sense-organ and is the instrument for the cognition of pleasure, pain, etc; also eternal. It has the eight qualities beginning with number (dimension, separateness, conjunction, disjunction, remoteness, proximity and velocity). Through contact with it the external sense-organs produce the cognition of objects and therefore mind is a (general) cause for all cognitions. It is not perceptible but only inferrable. The syllogism is like this. The cognitions of pleasure, pain, etc. are caused by an instrument other than the external sense-organs, eye, etc., just like the act of cooking takes place without an axe but with other causes like fire etc. This instrument is what is called mind. Its dimension is अणुत्व. Thus the substances have been explained.

Notes—Mind has already been explained once under इन्द्रिय vide para 84, and will again come to notice as the sixth प्रमेय in para 121. The author's explanation at the end of the book that extremely useful topics have been described over again under different headings, is more a request to the reader to put up with such repetitions than a convincing answer. In para 84 the emphasis is on mind's function as a करण for the cognition of pleasure, pain and the other special qualities of आत्मन्. So it has been defined as सुखाद्युपलब्धिसाधनमिन्द्रियं मनः. Because प्रत्यक्ष has been defined as that cognition arising from sense-object-contact and since the cognition of pleasure etc. comes under प्रत्यक्ष mind is postulated as the internal organ for such cognitions. Here the author wants to refute a section of the Naiyāyikas who do not accept मनस्त्व as a सामान्य and so defines mind through मनस्त्व, meaning thereby that it is as valid a generality as any; and uses the above-mentioned causal

function as the reason for the inference to establish the separate existence of mind as a substance.

Another important function of mind is that it acts as the intermediary or connecting link between the external senses and the soul in all external perceptions (cf. तत्संयोगेन etc. in the text.). Kaṇāda uses this property for the proof of mind when he says आत्मेन्द्रियार्थसन्निकर्षे ज्ञानस्य भावोऽभावश्च मनसो लिङ्गम् (V. S. III. 2-1). From experience it is seen that only when mind acts as a link between the soul and the external sense-organ, cognitions arise and otherwise not. So even when soul-sense-object contact is there the presence or absence of cognition is what accounts for the existence of mind.

This raises the question of dimension of the mind. Ordinarily cognition comes in only one after the other and not simultaneously. This fact has led the Naiyāyikas to stipulate that mind is atomic in dimension (अणु), as against the Bhāṭṭa Mīmāṁsaka view that it is all-pervading (विभु). Gautama uses this fact as the proof for mind as he says युगपज्ज्ञानानुत्पत्तिर्मनसो लिङ्गम् (N. S. 1-1-16). According to the Naiyāyikas, contact between two all-pervading substances is not admitted. Moreover if the mind were also विभु there would always be the contact of the external senses with it and all kinds of perceptions would occur simultaneously, and also there would be no sleep (vide the notes below). The Bhāṭṭas contend that विभुद्वयसंयोग is not impossible (as in the case of time and space), that आत्ममनःसंयोग operates only within the sphere of the body, that several cognitions do not occur simultaneously is not proved conclusively, and that several impeding reasons can be advanced for that fact. The Prābhākaras accept the Nyāya view that mind is an eternal atomic द्रव्य but do not agree that आत्मन् is perceived by the mind. The Advaitins hold that mind is only a modification (वृत्ति) of the अन्तःकरण which is their inner instrument of knowledge. All these differences are partly due to the conception of आत्मन् (and also of knowledge) which vary widely with the different schools (vide notes under para 76).

It was mentioned in the previous para that if mind were also to be विभु there would be no sleep. This leads us to the

Nyāya theory of sleep which is stated briefly as follows :— **सुषुप्त्यनुकूलमनः क्रियया मनसाऽऽत्मनो विभागः। तत आत्ममनस्संयोगनाशः। ततः पुरीतद्रूपोत्तरदेशेन मनस्संयोगरूपा सुषुप्तिरुत्पद्यते।**" (Dinakarī com : on S. M;Choukhamba Edn. p 184). At first due to some motion in the mind, it gets disjointed with the soul, by which it loses contact with the soul. Then it enters the place called **पुरीतत्**, a narrow vein or entrail near the heart. This entrance of the mind into **पुरीतत्** is sleep when all its activity ceases. This notion is perhaps borrowed by the Naiyāyikas from a statement in **बृहदारण्यकोपनिषत्**; "**अथ यदा सुषुप्तो भवति यदा न तस्य च वेद हिता नाम नाड्यो द्वासप्ततिसहस्राणि हृदयात् पुरीततमभिप्रतितिष्ठन्ते ताभिः प्रत्यवसृप्य पुरीतति शेते।**"(IV-1-19). This **श्रुतिवाक्य** says that during sleep *it* leaves the heart and enters **पुरीतत्** through the 72,000 arteries leading to it. Being **श्रुति** it has to be accepted; but in interpretation there is wide variation. The Advaitin says that *it* refers to **जीव** and the Naiyāyika says *it* means **मनस्** to suit his doctrines. However that be, the flaw in the Nyāya theory is that soul being **विभु** it cannot lose contact with the mind even in the **पुरीतत्** vein. To overcome this later authors have proposed that contact of mind with the tactile-sense is necessary for *all* cognitions.* **पुरीतत्** has no skin and so no cognitions arise during sleep. This appears to be as arbitrary as the previous one of mind losing contact with the soul. It would therefore be better to explain the phenomena of sleep and perception by conjunction and disjunction of the mind with the external sense organs alone.

2. **गुणः** [96] अथ गुणा उच्यन्ते। सामान्यवानसमवायिकारणमस्पन्दात्मा गुणः। स च द्रव्याश्रितः। रूप-रस-गन्ध-स्पर्श-संख्या-परिमाण-पृथक्त्व-संयोग-विभाग-परत्व-अपरत्व-गुरुत्व-द्रवत्व-स्नेह-शब्द-बुद्धि-सुख-दुःख-इच्छा-द्वेष-प्रयत्न-धर्म-अधर्म-संस्कार-भेदाच्चतुर्विंशतिरेव।

Translation—Now the qualities are being described. Quality is that which has generality, which serves as non-inherent cause and which has no motion. It always abides in a

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* Vide S. M. under **कारिक** 57.

substance. They are only twentyfour in number such as colour, taste, etc. (vide pp. 27-28).

Notes—The three terms in the definition of गुण are intended to exclude overlapping (अतिव्याप्ति) in (1) सामान्य and the rest, (2) द्रव्य and (3) कर्म respectively. This is also expressed in another form as 'द्रव्यकर्मभिन्नत्वे सति सामान्यवान् गुणः'.

1. **रूपम्** [97] तत्र रूपं चक्षुर्मात्रग्राह्यो विशेषगुणः । पृथिव्यादित्रयवृत्ति । तच्च शुक्लाद्यनेकप्रकारकं, पाकजमनित्यं च पृथिव्याम् । आप्यं तैजसञ्च परमाण्वोर्नित्यं, कार्येष्वनित्यम् । शुक्लभास्वरमपाकजं तेजसि । तदेवाभास्वरमप्सु ।

Translation—Of these 24, colour is that special quality which is cognised by the eye alone. It abides in earth, water and light. In earth it is of various kinds like white, black, etc, brought about by baking and so non-eternal. In water atoms and light atoms it is eternal and in their products non-eternal. The colour in light is dazzling white and that in water non-dazzling white. In both it is not due to baking.

Notes—In the above definition the word मात्र is necessary to exclude fluidity (द्रवत्व) which can be cognised by the tactile sense also. The word गुण is intended to avoid प्रभा which is considered a द्रव्य, as also रूपत्व which is a सामान्य, which two are grasped by eye alone. The word विशेष as attribute to गुण is to avoid overlapping in संख्या, संयोग, etc. which are only सामान्यगुण's. Even then the definition does not cover परमाणुरूप, and so the definition should be expanded in some such manner as चक्षुर्मात्रग्राह्यजातिमत्वं. The colour in atoms, though not visible being अनुद्भूत, does have रूपत्वजाति. Still the definition would overlap सुवर्ण which comes under तेजस् as explained earlier. So जातिमत्व should be further expanded as जातिमद्गुणत्व or गुणविभाजकधर्मवत्व. The reader may note the ingenius methods employed by Naiyāyikas to perfect their definitions.

शङ्करमिश्र (15th century) in his commentary उपस्कार on V. S. states four conditions as necessary for the perception of colour, vide Sūtra IV-1-8. (1) महत्परिमाण (or अनेकद्रव्यसमवेतत्व) i.e. the dimension महत्व in the substratum. The colour of

atoms and dyads are not visible for want of this condition. (2) उद्भूतत्व or manifestedness. The colour of the visual sense-organ which comes under तेजस् is not visible as it is not manifest. (3) अनभिभूतत्व = non-suppression by any उपाधि. The natural colour of तेजस् in gold, gems etc.—अभास्वरशुक्ल—is not grasped as it is अभिभूत (vide para 85). (4) रूपत्वजाति i.e. the generality *colour-ness*. If this is lacking रसत्व, गन्धत्व, etc, will be liable to be grasped by the eye. K. M. also mentions the first three in para 100 below.

Colour is of various kinds. But later authors like अन्नम्भट्ट and विश्वनाथ divide it into seven types :—(1) शुक्ल = white; (2) नील = blue or black; (3) पीत = yellow; (4) रक्त = red; (5) हरित = green; (6) कपिश = grey; and (7) चित्र = variegated or mixed. This division and the discussion on चित्ररूप is not found in the V. S. or the N. S. nor in their भाष्य's. Our author has chosen to follow the सूत्रकार in not mentioning these divisions. All the same the discussion about the necessity for a चित्ररूप will be of interest. The T. D. of An. Bh. states it briefly as follows :—नन्वव्याप्यवृत्तिनीलादिसमुदाय एव चित्ररूपमिति चेन्न। रूपस्य व्याप्यवृत्तित्वनियमात्। ननु चित्रपटेऽवयवरूपस्य प्रतीतिरस्त्विति चेन्न। रूपरहितत्वेन पटस्याऽप्रत्यक्षत्वप्रसङ्गात। न च रूपवत्समवेतत्वं प्रत्यक्षत्वप्रयोजकं गौरवात्। तस्मात् पटस्य प्रत्यक्षत्वानुपपत्त्या चित्ररूपसिद्धिः। This is explained below :-

Objection—Instead of postulating a separate colour as चित्ररूप why should it not be taken as a mixture of various colours ?

Answer—That cannot be for colour is a व्याप्यवृत्तिधर्म (one which covers the whole substratum) and you cannot say that all the various colours in the mixture cover the whole cloth at the same time.

व्याप्यवृत्तिधर्म is defined as स्वसमानाधिकरणात्यन्ताभावाप्रतियोगी, i.e., an attribute which does not co-exist with its own negation. When a book is on the table only that side of the book which is in contact with the table has संयोग. The other parts of the book and the table are not in contact with each other. Here therefore संयोग and संयोगाभाव both co-exist together in the table

and the book. So पुस्तकसंयोग is an अव्याप्यवृत्तिधर्म. Similarly कपिसंयोग is another example. Colour is not like this as it must occupy the whole of its substratum.

Objection —Even if colour is व्याप्यवृत्ति what harm is there if we say that in a variegated piece of cloth all the colours in its component parts (threads) are seen ?

Answer —In that case there is no colour as such in that cloth and so it will become imperceptible (as manifest colour is a cause for visual perception).

Objection —That can be overcome by postulating रूपवत्-समवेतत्व (the fact of being inherent in a coloured object) as the condition for perception instead of रूपवत्त्व (the fact of possessing colour).

Answer —This is certainly more elaborate and cumbersome than accepting चित्ररूप for the perceptibility of a variegated cloth.

Here the Naiyāyika doctrine that, while a product (अवयविन्) is distinct from its component parts (अवयव's), a collection (समुदाय) is not different from the parts that make it up, is alluded to. The grouping of qualities into विशेष and सामान्य has already been mentioned under para 16.

2. रसः [98] रसो रसनेन्द्रियग्राह्यो विशेषगुणः। पृथिवीजल-वृत्तिः। तत्र पृथिव्यां मधुरादिषट्प्रकारः, मधुराम्ललवणकटुकषाय-तिक्तभेदात्, पाकजश्च। अप्सु मधुरोऽपाकजो नित्योऽनित्यश्च। नित्यः परमाणुभूतास्वप्सु। कार्यभूतास्वनित्यः।

Translation—Taste is that special quality which is cognised by the tongue. It abides in earth and water. In earth there are all the six varieties, sweet, sour, salt, pungent, astringent and bitter, which are caused by baking. In water there is only sweet taste, which is not due to baking; but which is eternal in water atoms and non-eternal in products.

3. **गन्धः** [99] गन्धो घ्राणग्राह्यो विशेषगुणः। पृथिवीमात्रवृत्तिः, अनित्य एव। स द्विविधः, सुरभिरसुरभिश्च। जलादौ गन्धप्रतिभानं संयुक्तसमवायेन द्रष्टव्यम्।

Translation—Smell is the special quality cognised by the nose. It abides only in earth and is non-eternal. It is of two kinds, fragrant and non-fragrant. The smell that appears to come from water, air, etc. is only through the relation 'inherence in the contacted thing', i.e. inherent in the earthy matter with which water etc. are mixed up.

6. **स्पर्शः** [100] स्पर्शस्त्वगिन्द्रियमात्रग्राह्यो विशेषगुणः। पृथिव्यादिचतुष्टयवृत्तिः। स त्रिविधः, शीत-उष्ण-अनुष्णाशीत-स्पर्शभेदात्। शीतः पयसि, उष्णस्तेजसि, अनुष्णाशीतः पृथिवीवाय्वोः। पृथिव्यां पाकजः। स एवाऽपाकजो वायौ। पृथिवीमात्रे ह्यनित्यः। आप्यतैजसवायवीयपरमाणुषु नित्यः, कार्येष्वनित्यः। एते रूपादयश्चत्वारो महत्वैकार्थसमवेतत्वे सत्युद्भूता एव प्रत्यक्षाः।

Translation—Touch is the special quality cognised by the tactile sense alone. It subsists in all the four substances, earth, water, light and air. It is of three kinds, cold, hot, and tepid (neither hot nor cold). Cold touch abides in water, hot in light, and tepid in earth and air. That in earth is caused by baking, but not so in air. It is non-eternal in earth, but eternal in the atoms of the other three and non-eternal in their products. These four qualities, colour, taste, smell and touch, become perceptible only when they are manifested and when they inhere in substances with **महत्व** dimension.

Notes—The definitions of the above three are to be understood in the same manner as explained under colour. In the case of touch the word **मात्र** is necessary as there are other qualities cognisable by the tactile sense such as fluidity, contact, number etc. On the analogy of **चित्ररूप** there is no necessity to accept a **चित्ररस** or **चित्रस्पर्श** in objects having different **रस**'s and **स्पर्श**'s as there is no harm in attributing them to their **अवयव**'s. **शङ्करमिश्र** (quoted under **रूप**) however is of the opinion that a **चित्रस्पर्श** is necessary on the analogy of **चित्ररूप**, (Cf. "**चित्रस्पर्शस्तु रूपस्थलीययुक्त्या स्वीकरणीय एव।**"); while he

denies a चित्ररस, Cf. "न च हरीतक्यां रसोऽपि चित्र इति वाच्यम् । हरीतक्या नीरसत्वे दोषाभावात् ।" (under V. S. VII-1-6). This is because of the view that air is only inferrable and not perceptible even by the tactile sense (vide para 86).

5. संख्या [101] संख्या एकत्वादिव्यवहारहेतुः, सामान्यगुणः, एकत्वादिपरार्धपर्यन्ता । तत्रैकत्वं द्विविधं नित्यानित्यभेदात् । नित्यगतं नित्यं, कार्यगतमनित्यं, स्वाश्रयसमवायिकारणैकत्वजन्यं च । द्वित्वाद्यनित्यमेव । तच्च द्वयोः पिण्डयोरिदमेकमिदमेकमित्यपेक्षाबुद्धया जन्यते । तत्र पिण्डौ समवायिकारणे । पिण्डयोरेकत्वेऽसमवायिकारणे । अपेक्षाबुद्धिर्निमित्तकारणम् । अपेक्षाबुद्धिनाशादेव द्वित्वनाशः । एवं त्रित्वाद्युत्पत्तिः ।

Translation—Number is a common quality which serves as the cause for expressing (the notions of) one, two, etc. It extends from one to परार्ध (a hundred thousand billion = 10^{17}). Unity is of two kinds, eternal and non-eternal; that in eternal things is eternal and that in products non-eternal. The latter is produced by the number unity in its substratum which is its inherent cause. Numbers two and above are always non-eternal. The notion of duality is caused by a particular conception of the form 'this is one, this is one,' (called अपेक्षाबुद्धि) that arises with reference to any two objects. In this case the two objects constitute the inherent cause, the unities in the two objects (separately) the non-inherent cause and the particular conception (अपेक्षाबुद्धि) itself is the general cause. The loss of the notion of duality is caused by the loss of this अपेक्षाबुद्धि. The origin of the notion of numbers three and above is to be understood in the same way (as in the case of number two).

Notes—The word हेतु in the definition of number is to be understood as असाधारणनिमित्तकारण, so as to exclude such common (साधारण) causes as time, space, etc. परार्ध means 'half of Brahmas' after a age—He is termed परार्धद्वयजीविन्—which works up to the figure 432×10^{15}. In Hindu astronomy परार्ध is used for a number of 18 digits which was considered to be the highest number amenable for their manipulations.

It should be noted that in the N. V. system the words एकत्व, द्वित्व, त्रित्व, etc. denote the numbers one, two, three, etc. and that

एक, द्वौ, त्रय, etc. refer to the substances they qualify as एको घटः, द्वे पुस्तके, त्रयो गावः etc. In the case of अपेक्षाबुद्धि, एकत्व denotes the relation of being the object of that cognition—अपेक्षाबुद्धिविशेषविषयता. एकत्व in certain cases as in expressions like समवायस्त्वेक एव denotes a negative idea as 'not having a second thing of the same kind'—स्वसजातीयद्वितीयराहित्य. The notion of unity is restricted to the substratum to which it relates, whereas the notions of duality and of higher numbers refer *partially* to the individual entities in the group and completely to only the groups of two etc. This is stated in Sanskrit as एकत्वबुद्धिः प्रत्येकपर्याप्ता, द्वित्वादिबुद्धयस्तु व्यासज्यवृत्तयः.

अपेक्षाबुद्धि is a special type of conception that occurs on seeing two or more things, as 'this is one, this is one; so there are two'—Cf. 'अनेकैकत्वबुद्धिर्या सापेक्षाबुद्धिरुच्यते । (B. P. V. 108). The notion of numbers two and above are caused by this conception which may therefore be considered a notion of addition. The origin of the notion of duality is a complicated process and takes seven moments of time as explained by शङ्करमिश्र in his उपस्कार under V. S. VII-2-8. This is summarised below. (1) इन्द्रियार्थसन्निकर्षः = The sense-organ comes into contact with the objects; (2) तत एकत्वत्वसामान्यग्रहः = Then arises the notion of the generality एकत्वत्व (i.e. the निर्विकल्प cognition) in the things separately; (3) तत एकत्वज्ञानं, अपेक्षाबुद्धिश्च = Then the notion of unity in each along with अपेक्षाबुद्धि; (4) द्वित्वगुणोत्पत्ति = Next the notion of द्वित्व as a quality comes into being; (5) ततो द्वित्वत्वज्ञानं = Then arises the notion of द्वित्वत्व in निर्विकल्प form; (6) तत अर्थयोर्द्वित्वज्ञानं = Then arises the notion that the number two subsists in both the things; (7) ततो द्वित्वविशिष्टज्ञानं = Then the final notion that the objects are two in number. This lengthy process is considered necessary because of the general rule that all cognitions last only for two moments and get lost in the third moment after leaving an impression (संस्कार). But अपेक्षाबुद्धि does not conform to this rule, for it would come to an end at the fifth moment (vide the summary above) when द्वित्व, its effect, has not come into being, and the cause can get destroyed only after the effect is produced. To avoid this difficulty अपेक्षाबुद्धि here is allowed an extra moment of life. The above process of the origin of the

notion of duality is found summarised in a memorable verse in the सर्वदर्शनसंग्रह of माधवाचार्य under the Vaiśeṣika system—

> आदाविन्द्रियसन्नि[1]कर्षघटनादेकत्वसामान्य[2] धी—
> रेकत्वोभयगोचरा[3]मतिरतो द्वित्वं[4] ततो जायते।
> द्वित्वत्व[5]प्रमितिस्ततो नु परतो द्वित्व[6]प्रमाऽनन्तरं
> द्वे द्रव्ये इति[7]धीरियं निगदिता द्वित्वोदयप्रक्रिया॥

This theory of the origin of द्वित्व, as also that of पाक (explained earlier) and that of disjunction caused by another disjunction (विभागजविभाग, vide विभाग below) were at one time considered the most difficult and knotty topics in the Vaiśeṣika system. Ability to expound these satisfactorily through the bewildering labyrinth of verbal subtlety was considered the hall-mark of a Vaiśeṣika. (vide foot-note on p. 202).

6. **परिमाणम्** [102] परिमाणं मानव्यवहारकारणम्। तत्-चतुर्विधम्, अणु, महत्, ह्रस्वं, दीर्घं चेति। तत्र कार्यगतं परिमाणं संख्या-परिमाणप्रचययोनि। तद्यथा। द्व्यणुकपरिमाणमीश्वरापेक्षा-बुद्धिजन्यपरमाणुद्वित्वजनितत्वात् संख्यायोनि। संख्याकारणमित्यर्थः। त्र्यणुकपरिमाणमपि स्वाश्रयसमवायिकारणगतबहुत्वसंख्यायोनि। चतुरणुकादीनान्तु स्वाश्रयसमवायिकारणपरिमाणजन्यम्। तूलपिण्ड-परिमाणं तु स्वाश्रयसमवायिकारणावयवानां प्रशिथिलसंयोगजन्यम्। परमाणुपरिमाणं, परममहत्परिमाणमाकाशादिगतं च नित्यमेव।

Translation—Dimension is the cause for expressing the notion of measurement. It is of four kinds, atomic or small, great, short and long. The dimension of products is caused by (1) number or (2) by dimension, or (3) by the aggregation of the component parts (प्रचय). For instance the dimension of a dyad is caused by the number 'two' in its component parts, the atoms. This duality in the atoms is caused by the अपेक्षाबुद्धि of the Almighty. Here the word योनि means cause. The dimension in the triad is also caused by the large number in its component parts which constitute its inherent cause (the dyads). The dimension of tertiaries and higher products is caused by the dimension in their component parts which constitute their inherent cause. The dimension of a mass of cotton (and similar things) is caused by the

loose combination of its component parts which form its inherent cause. The smallest dimension in the atom (पारिमाण्डल्य) and the greatest one (परममहत्त्व) existing in ether etc. are eternal.

Notes—Here and in the definitions below the word कारण or हेतु is to be understood as असाधारणनिमित्तकारण as explained under संख्या. [A. editions read the text as असाधारणकारणम् omitting निमित्त.] The dimensions अणुत्व and महत्त्व refer to both area and volume while ह्रस्वत्व and दीर्घत्व relate to only linear dimension. Regarding dimensions of dyads, triads, etc and how number comes in to make up dimension, vide notes under paras 90 and 91.

7. **पृथक्त्वं** [103] पृथक्त्वं पृथग्व्यवहारहेतुः ।* तद्द्विविधं, एकपृथक्त्वं, द्विपृथक्त्वादिकं च । तत्राद्यं नित्याश्रितं नित्यम् अनित्याश्रितमनित्यम् । द्विपृथक्त्वादिकमनित्यमेव ।

Translation—Separateness is the cause for expressing one thing as separate from another. It is of two kinds, separateness from one thing, and separateness from two or more things. The first kind is eternal in eternal things and non-eternal in non-eternal things (products). The second is always non-eternal.

Notes—पृथक्त्व is justified as a quality different from भेद or अन्योन्याभाव on the subtle ground that it is the object of a positive cognition while भेद is the object of a negative cognition. The difference lies in the subtle difference in meaning between the sentences 'a pot is separate from a cloth' and 'a pot is different from a cloth'. Modern Naiyāyikas do not admit this subtle distinction which, they say, is due to the context in which such sentences are used and so include पृथक्त्व under भेद.

8. **संयोगः** [104] संयोगः संयुक्तव्यवहारहेतुः । द्व्याश्रयोऽव्याप्यवृत्तिश्च । स त्रिविधः, अन्यतरकर्मजः, उभयकर्मजः, संयोगजश्च । तत्रान्यतरकर्मजो यथा क्रियावता श्येनेन निष्क्रियस्य स्थाणोः संयोगः ।

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* The portion 'तद्द्विविधं .... अनित्यमेव' is found added in the margin of the original of my transcipt.

विभूनां मूर्तैस्संयोगो वा । उभयकर्मजो यथा सक्रिययोर्मल्लयोस्संयोगः । संयोगजो यथा कारणाकारणसंयोगात् कार्याकार्यसंयोगः । यथा हस्ततरुसंयोगेन कायतरुसंयोगः ।

Translation—Conjunction is the cause for expressing the notion that two things are in contact. It subsists in two things and does not cover completely both the substance. It is of three kinds; (1) conjunction caused by action in *either* of the substrata, (2) that caused by action in both the substrata and (3) that caused by another conjunction. An example of the first kind is the conjunction of a *moving* kite with a stationary pillar, or the conjunction of a tangible substance (मूर्तद्रव्य) with any of the all-pervading ones. The second variety occurs in the conjunction of two wrestlers when both move to meet each other. The third type occurs when there is conjunction between an effect and a non-effect due to the conjunction between its cause and a non-cause thing as for example the conjunction of the body with the tree when there is conjunction of the hand with the tree.

9. **विभागः** [105] विभागो विभक्तप्रत्ययहेतुः । संयोगपूर्वको द्व्याश्रयश्च । स त्रिविधः, अन्यतरकर्मजः, उभयकर्मजः, विभागजश्च । तत्र प्रथमो यथा श्येनक्रियया श्येनशैलयोर्विभागः । द्वितीयो यथा मल्लयोर्विभागः । तृतीयो यथा हस्ततरुविभागात् कायतरुविभागः ।

Translation—Disjunction is the cause for expressing the notion that two things are disjointed. It is also related to two substrata and is (always) preceded by conjunction. It is of three kinds : (1) that brought about by action in either of the substrata; (2) that caused by action in both; and (3) that caused by another disjunction. Examples of the three kinds are respectively (1) disjunction between the kite and the hill due to motion in the kite; (2) that between two wrestlers; and (3) that between the body and the tree when the hand is removed from the tree.

Notes—**संयोग**, though actually a temporary relation, is considered a quality in the N. V. system and is the fact of two things being in contact and not the act of joining them together. K. M. has mentioned three methods of its origin following the Sūtrakāra while other authors like An : Bh :

would like to give only two classes as कर्मज and संयोगज and then classify the former into two heads. In the third example there is only one संयोग, of the hand with the tree, and actually no second संयोग is *produced*. It is only the same contact being expressed in another form. When one says 'a man is climbing the hill', everyone knows that it is his feet that are in contact with the hill and there is no question of this contact producing another contact of the whole body of the man with the hill. For this reason the more modern Naiyāyikas do not accept संयोगजसंयोग and on the same principle विभागजविभाग.

विभाग is not the absence of संयोग for then it would only be an अभाव and not a गुण. It denotes the stage of separateness thus causing the destruction of a previous conjunction. This is what the author means when he says that it is संयोगपूर्व. The process of विभाग and संयोग is supposed to take place in the following order. First क्रिया, an effort say, to lift the pot; by this there is विभाग, the pot gets disjointed from its place; through this पूर्वसंयोगनाश, the pot loses contact with the original spot; then another क्रिया, effort to place the pot at another place; then उत्तरदेशसंयोग, contact of the pot at another spot. From this it will be seen that विभाग causes संयोगनाश and is not संयोगनाश itself. But it is not explained why the second and third steps should not be taken as one and the same and what harm is there if विभाग becomes an अभाव (संयोगनाश) as the moderners would like to classify it. Whatever has been mentioned about संयोगजसंयोग applies also in the case of विभागजविभाग though it is considered the third knot in the Vaiśeṣika system as mentioned in p. 199*. These five qualities from संख्या constitute सामान्यगुण's as they abide in all the nine द्रव्य's.

10 & 11. परत्वाऽपरत्वे [106] (a) परत्वाऽपरत्वे परापरव्यवहारकारणे। ते द्विविधे, दिक्कृते कालकृते च। तत्र दिक्कृतयोरुत्पत्तिः कथ्यते। एकस्यां दिश्यवस्थितयोः पिण्डयो 'रिदमस्मात्

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* द्वित्वे च पाकजोत्पत्तौ विभागे च विभागजे।
यस्य न स्खलिता बुद्धिस्तं वै वैशेषिकं विदुः॥ [स. द. सं.]

A. editions have this verse as part of the text at the end of विभाग without any connection.

सन्निकृष्ट'मिति बुद्धयाऽनुगृहीतेन दिक्पिण्डसंयोगेनाऽपरत्वं सन्निकृष्टे जन्यते। विप्रकृष्टबुद्ध्या तु परत्वं विप्रकृष्टे जन्यते। सन्निकर्षस्तु पिण्डस्य द्रष्टुः शरीरापेक्षया संयुक्तसंयोगाल्पीयस्त्वम्। तद्भूयस्त्वं विप्रकर्षः।

(b) कालकृतयोस्तु परत्वाऽपरत्वयोरुत्पत्तिः कथ्यते। अनियतदिगवस्थितयोर्युवस्थविरपिण्डयोः 'अयमस्मादल्पतरकालसम्बद्ध' इत्यपेक्षाबुद्धयनुगृहीतेन कालपिण्डसंयोगेन यून्यपरत्वम्। 'अयमस्मात् प्रचुरकालेन सम्बद्ध' इति धिया स्थविरे परत्वम्।

Translation—(a) Remoteness and proximity are the (specific = असाधारण) causes for expressing the notions of objects being distant or near by. They are of two kinds; those brought about by (relation to) space, and those brought about by (relation to) time. The former is being explained (first). When two things are situated at a place we gain an impression that one of them is nearer to us than the other. Aided by this impression the notion of proximity in the nearer thing is created by the contact of that thing with less number of space points (between it and the observer). Similarly the notion of remoteness is created by the contact of the other thing with a larger number of space points aided by the impression that that thing is farther away than the other. सन्निकर्ष here means (in contrast to its use in इन्द्रियार्थसन्निकर्ष under प्रत्यक्ष) the fact that an object has less number of contacts with space points intervening between the object and the observer's body and विप्रकर्ष means the fact of the object having greater number of such space contacts.

(b) Remoteness and proximity due to time are being explained (now). When a youth and an old man are situated at any place an impression arises that one is younger in age then the other. Aided by this impression the contact between the younger one and the time (factor) causes the notion of proximity (i.e. younger age) in the youth, and a similar contact of the elder with the time factor creates the notion of remoteness (i.e. elder age) in the older man aided by the impression that he is elder of the two.

Notes—परत्व and अपरत्व are only relative notions with respect to space and time. As already mentioned (vide p. 28) modern

Naiyāyikas do not include पृथक्त्व, विभाग, परत्व and अपरत्व in the list of qualities. The impression that one is nearer or older than the other is also a kind of अपेक्षाबुद्धि (vide under संख्या). For परत्व and अपरत्व the three causes are the object itself, its contact with space or time, and the above-mentioned अपेक्षाबुद्धि and other things (general causes). A editions have the word असमवायिकारणेन after दिक्पिण्डसंयोगेन and कालपिण्डसंयोगेन in the above text.

12. **गुरुत्वम्** [107] गुरुत्वमाद्यपतनाऽसमवायिकारणम् । पृथिवीजलवृत्ति । यथोक्तं, 'संयोगवेगप्रयत्नाभावे सति गुरुत्व' मिति । (V. S. : V. 1–7.).

Tranlation—Weight (or gravity) is the quality which is the non-inherent cause for the first step in the process of falling. It subsists in earth and water. It is said (in V. S. : V. 1·7) that 'the falling of a substance is caused by weight in the absence of conjunction (with another body), velocity or effort'.

Notes—The word आद्य in the definition of गुरुत्व (as also in the next द्रवत्व) is to avoid overlapping in the second and subsequent moments of falling (or flowing) which are caused by the velocity generated by the immediately preceding moment of falling (or flowing). The V. S. quoted actually reads only संयोगाभावे गुरुत्वात् पतनम्' which means that in the absence of any contact (i.e. any support) a body falls by its own weight. According to K. M's. reading संयोग, i.e. contact with a heavier body, वेग, i.e. retardation and प्रयत्न i.e. effort or counteracting force, are obstructions to falling and so only in their absence a body falls due to its weight. K. M. might have had a different reading of the Sūtra.

13. **द्रवत्वम्** [108] द्रवत्वमाद्यस्यन्दनाऽसमवायिकारणम् । भूतेजोजलवृत्ति । भूतेजसोः घृतादिसुवर्णयोरग्निसंयोगात् द्रवत्वं नैमित्तिकम् । जले नैसर्गिकम् ।

Translation—Fluidity is the quality that is the non-inherent cause for the first step in flowing. It subsists in earth, light and water. That in earth and light, eg. in ghee etc. and in gold etc. respectively, is caused by fire and therefore artificial. In water it is natural.

14. स्नेहः [109] स्नेहश्चिक्कणता। जलमात्रवृत्तिः। कारण-गुणपूर्वको गुरुत्वादिवद्यावद्द्रव्यभावी।

Translation—Viscosity is oiliness. It subsists in water alone. It is caused (in products) by similar quality in their causes (i.e. their component parts). Like weight it is coeval with the substance which constitutes its substratum.

Notes—Another useful definition—the one in the text is only a synonym—is **स्नेहश्चूर्णादिपिण्डीभावहेतुः** (T. S.). **स्नेह** is the quality that is the specific cause for agglutination of powders etc. (like āṭṭa). Why this agglutination could not be ascribed to **द्रवत्व** is because the **द्रवत्व** of gold and other metals is not capable of causing it. The **न्यायबोधिनी** gloss on the T. S. has the following interesting remarks on **स्नेह**—**"वस्तुतस्तु द्रुतजलसंयोगस्यैव पिण्डीभावहेतुत्वम्। स्नेहस्य पिण्डीभावहेतुत्वे मानाभावात्। जले द्रवत्व-विशेषणात् करकादिव्यावृत्तिः।"**

15. शब्दः [110] (a) शब्दः श्रोत्रग्राह्यो गुणः। आकाशस्य विशेषगुणः! ननु कथमस्य श्रोत्रेण ग्रहणम्। यतो भेर्यादिदेशे शब्दो जायते, श्रोत्रन्तु पुरुषदेशेऽस्ति। सत्यम्। भेर्यादिदेशे जातः शब्दो वीचीतरङ्गन्यायेन कदम्बमुकुलन्यायेन वा सन्निहितं शब्दान्तरमारभते। स च शब्दः शब्दान्तरमिति क्रमेण श्रोत्रदेशे जातोऽन्त्यः शब्दः श्रोत्रेण गृह्यते। नाद्यो नापि मध्यमः। एवं वंशे पाठ्यमाने दलद्वय-विभागदेशे जातः शब्दः शब्दान्तरारम्भक्रमेण श्रोत्रदेशेऽन्त्यं शब्दं जनयति। योऽन्त्यः शब्दः श्रोत्रेण गृह्यते। नाद्यो नापि मध्यमः। भेरीशब्दो मया श्रुत इति धीस्तु भ्रान्तैव,

(b) भेरीशब्दोत्पत्तौ भेर्याकाशसंयोगोऽसमवायिकारणम्। भेरी-दण्डसंयोगो निमित्तकारणम्। एवं वंशपाटनाच्चटचटाशब्दोत्पत्तौ वंशदलाकाशविभागोऽसमायिकारणम्। दलद्वयविभागो निमित्त-कारणम्। इत्यमाद्यशब्दः संयोगजो विभागजो वा। अन्त्यमध्यम-शब्दास्तु शब्दाऽसमवायिकारणका अनुकूलवातनिमित्तकाः। यथोक्तं—'संयोगात्, विभागात्, शब्दाच्च शब्दनिष्पत्तिः' इति (V. S. II. 2-31)। आद्यादीनां सर्वशब्दानामाकाशमेव समवायिकारणम्। कर्मबुद्धिवदस्य त्रिक्षणावस्थायित्वं च। तत्राद्यमध्यशब्दाः कार्य-शब्दनाश्याः। अन्त्यस्तूपान्त्येन, उपान्त्यस्त्वन्त्येन सुन्दोपसुन्दन्यायेन

नश्येते । इदञ्चायुक्तम् । उपान्त्येन त्रिक्षणावस्थायिनाऽन्त्यस्य द्वितीयक्षणमात्रानुगामिना तृतीयक्षणे चासताऽन्त्यनाशजननासंभवात् । तस्मादुपान्त्यनाशादेवान्त्यनाश इति ।

(c) विनाशित्वं च शब्दस्यानुमानात् । तथाहि । शब्दोऽनित्यः सामान्यवत्वे सत्यस्मदादिबाह्येन्द्रियग्राह्यत्वात्, घटवदिति । शब्दस्याऽनित्यत्वं साध्यम् । अनित्यत्वञ्च विनाशावच्छिन्नस्वरूपवत्वम् । न तु विनाशावछिन्नसत्तायोगित्वम् । प्रागभावे सत्ताहीनेऽनित्यत्वाभावप्रसङ्गात् । सामान्यवत्वे सति अस्मदादिबाह्येन्द्रियग्राह्यत्वं हेतुः । इन्द्रियग्राह्यत्वादित्युच्यमाने आत्मनि व्यभिचारः स्यात् । अत उक्तं बाह्येति । एवमपि योगिबाह्येन्द्रियेण ग्राह्ये परमाण्वादौ व्यभिचारः स्यात् । अतो योगिनिरासार्थमुक्तमस्मदादीति । किं पुनर्योगिसद्भावे प्रमाणम् ? उच्यते । परमाणवः कस्यचित्प्रत्यक्षाः, प्रमेयत्वात्, घटवदिति । तथापि सामान्यादिना व्यभिचारः । अत उक्तं सामान्यवत्वे सतीति । सामन्यादित्रयस्य निस्सामान्यत्वात् ।

Translation—(a) Sound is the quality that is cognised by the ear. It is the specific quality of ether. How can it be cognised by the ear ? For, sound is produced at the place where the drum is while the ear is attached to the hearer (at a different place). True. Sound (at first) arising from the place of the drum produces another sound either in the form of water-ripples or in the form of filaments of the Kadamba flower. This second sound produces another (and this in turn another). In this manner the last sound that raps the ear is heard by it; neither the first nor the middle ones. Similarly when a bamboo is clept into two the sound arising at the place of cleaving produces another and this another and so on, till the last sound reaching the ear region is cognised by it; neither the first nor the middle ones. The experience that one gets as 'I heard the sound of the drum', is only a misconception (if it is related to the place of origin of the sound).

(b) In the production of sound from a drum, contact of the drum with ether is the non-inherent cause and contact of the drum with the stick is a general cause. For the चटचटा sound produced when a bamboo is being clept, the disjunction

between the bamboo parts and ether is the non-inherent cause and the disjunction between the two clept parts is the general cause. Thus the origin of the first sound is caused either by conjunction or by disjunction, while the intermediate and last sounds are caused by the immediately preceding sound itself as the non-inherent cause and favourable air currents etc. as general causes. This is stated by the Sūtrakāra : "The origin of sound is caused by conjunction, disjunction, and by sound also" (V. S. II-2-31). The inherent cause for all sounds including the first is ether itself. Like action and cognition sound also exists for three moments of time. The first and intermediate sounds are destroyed by the sound succeeding each (their effects). Some say that the last and last but one sounds destroy mutually as is the case with Sunda and Upasunda–these two demons, brothers, fought and killed each other. But this is not correct. For the penultimate sound which (by hypothesis) should last for three moments, gets lost at the second moment of the last one; and so it does not exist in the third moment of the latter and therefore not in a position to destroy the last sound. For this reason it is held that the destruction of the last sound is brought about by the absence of the penultimate one (it non-inherent cause).

(c) Sound is known to be destructible (i.e. non-eternal) through inference which can be stated as follows. Sound is non-eternal, because, besides having a generality, it is cognised by our external sense-organ, like a jar. In this syllogism the fact of being non-eternal is the साध्य. Non-eternality should be taken to mean the fact of having a *form* liable to destruction and not the fact of having an *existence* liable to destruction. In the latter case there would be no non-eternality in antecedent negation which has no *existence* as such. The हेतु in the above syllogism is 'besides having a generality sound is cognised by our external sense-organ'. If the हेतु is stated as 'cognised by sense-organ' only, it would stray into आत्मन् (as it is cognised by the mind and also has a generality). So the attribute 'external' is added to sense-organ. Even then the हेतु would stray into atoms etc. which are cognisable by the external senses of Yogins. To avoid this the word 'our' is used. [The opponent objects in the middle]. What is the authority for

the existence of Yogins ? (Answer) It is inference like this : The atoms are perceptible by some one because they are knowables like jars. If the first part 'having a generality' is not included in the हेतु it would stray into generality etc. As generality, particularity and inherence have no generality, this part 'सामान्यवत्वे सति' is also included in the हेतु.

Notes—When a stone is thrown on still water we observe that endless circular ripples are produced one outside the other till the last one is lost on striking the bank or becomes too dim to be visible. Similarly sound at the place of origin produces sound waves which move farther and farther in all directions till one such wave reaches the ears of the hearer. Here last sound is to be understood as the one that is heard by the hearer, for it is not known actually when and where such sound waves get lost. Moreover the same sound is heard by different persons standing at different places. The analogy of water ripples to explain how sound travels is called वीची-तरङ्गन्याय. In this there is only one series of several circular sound waves.

Others however apply the analogy of the filaments of a Kadamba bud, known as कदम्बमुकुलन्याय. In this flower, the filament that shoots up first causes several other filaments to shoot up in all parts of it simultaneously. In the same way the first sound at the place of origin produces other sounds in all the ten directions simultaneously. Each one of these causes other sounds again in all directions till at last one such sound reaches the hearer's ear. In this explanation the sound waves increase in geometric progression. The analogy in either case is to be extended only to the manner in which sound waves travel from the place of origin to the ears of the hearer.

In para 110 (b) the author explains all the three causes for the origin of sound, as also the causes for its destruction. For all sound ether is the inherent cause as sound inheres only in ether. For the first sounds (S_1) the conjunction of the drum with ether, or the disjunction of the bamboo with ether forms the non-inherent cause, and the conjunction of the stick with the drum or the disjunction between the two bamboo parts, forms the general cause. For subsequent sounds begin-

ing from the second, the immediately preceding sound itself is the non-inherent cause and a favourable current of air, proper distance, etc. would form general causes. As soon as S_2 originates S_1 gets lost, and when S_3 originates S_2 gets lost. This is what the author means by कार्यशब्दनाश्यः. Figuratively it can be written as follows :—

Origin S_1, S_2, S_3, S_4..............S_{n-1}, S_n, × ×
Loss ———S_1, S_2, S_{n-2}, S_{n-1}, S_n

In this way when the last sound S_n originates the penultimate one S_{n-1} dies away at the next moment. But S_n produces no further one and so it would appear that it is not destroyed at all. But since the Naiyāyika is firm in saying that sound is destructible, he has either to say that S_{n-1} and S_n mutually cause the loss of the other, or S_n gets lost by the loss of its inherent cause S_{n-1}. In the former case the general dictum that any sound is lost in the third second after producing a succeeding one will not be satisfied and so the author has put forward the second reason for the loss of S_n. [Here all the printed texts and my transcript also read कर्मबुद्धिवदस्य त्रिक्षणावस्थायित्वं च. But कर्मन् is supposed to exist for four moments (vide p.34). Ch.Bh. merely glosses over it saying स्नेहवदक्षणिशङ्कां प्रतिक्षिपति कर्मेति. In the B edition it is mentioned that one of the Mss omits 'कर्मबुद्धिवदस्य'. In the Ms. from which my transcript was made there is a remark in the margin in a different hand 'कर्मेत्यपपाठः'. It has not been possible to get other Mss. or commentaries to clear the discrepancy.]

In para 110 (c) K. M. wants to emphasize the Naiyāyika stand that sound is non-eternal by a pedantic syllogism, the words of which he explains in great detail. In fact the previous para 110 (b) itself was a prelude to this, to show that sound is always a product and so is destructible in contrast to the Mīmāṁsā doctrine that sound is eternal. In this connection the notes under शब्दप्रमाण may be recalled here also.

16 & 21. बुद्धिसुखदुःखेच्छाद्वेषप्रयत्नाः

[111](a) अर्थप्रकाशो बुद्धिः = Cognition is that (quality) by which objects are made known.

(b) प्रीतिः सुखं, सर्वात्मनामनुकूलवेदनीयम् = Pleasure is satisfaction and desirable for all.

(c) पीडा दुःखं, सर्वात्मनां प्रतिकूलवेदनीयम् = Pain is suffering and is undesirable for all.

(d) राग इच्छा = Desire is attachment.

(e) क्रोधो द्वेषः = Hatred is anger.

(f) उत्साहः प्रयत्नः = Effort is exertion.

(g) बुद्ध्यादयः षण्मानसप्रत्यक्षाः = The six qualities beginning with cognition are perceptible by the mind (only).

22 & 23 **धर्माधर्मौ** [112] सुखदुःखयोरसाधारणकारणे धर्माऽधर्मौ। तौ चाप्रत्यक्षावप्यागमगम्यौ। अनुमानगम्यौ च। देवदत्तस्य शरीरादिकं देवदत्तविशेषगुणजन्यं, कार्यत्वे सति देवदत्तभोगहेतुत्वात्। देवदत्तप्रयत्नजन्यवस्तुवत्। यश्च शरीरादिजनक आत्मविशेषगुणः स एव धर्माऽधर्मश्च। प्रयत्नादीनां शरीराद्यजनकत्वात्।

Translation—Merit and demerit are the special causes for pleasure and pain. Though they are not perceptible they are known (to exist) from the Vedas, as well as through inference. (The inference is as follows). Devadatta's body and other things are produced by some special qualities of his soul, because they, while being products are the causes for his enjoyment, like any other object obtained by his efforts. These special qualities of the soul which produce (his) body etc. are (his) merit and demerit, as effort and the other special qualities are not capable of producing the body etc.

24. **संस्कारः** [113] संस्कारस्त्रिविधः, वेगो, भावना, स्थितिस्थापकश्चेति। तत्र वेगः पृथिव्यादिचतुष्टयवृत्तिः क्रियाहेतुश्च। भावनाख्यसंस्कार आत्ममात्रवृत्तिरनुभवजन्यः, स्मृतिहेतुः। स चोद्बुद्ध एव स्मृतिं जनयति। उद्बोधश्च सहकारिलाभात्। सहकारिणश्च संस्कारस्य सदृशदर्शनादयः। यथोक्तं—'सदृशादृष्टचिन्ताद्या स्मृतिबीजस्य बोधका' इति। स्थितिस्थापकस्तु स्पर्शवद्विशेषवृत्तिः। अन्यथाभूतस्य स्वाश्रयस्य धनुरादेः पुनस्तथैव स्थापकः।

एते बुद्ध्यादयोऽधर्मान्ता भावना चाऽऽत्मविशेषगुणाः। गुणा उक्ताः।

Translation—Faculty is of three kinds, velocity, mental impression and elasticity. Of these velocity subsists in the five substances, earth, water, light, air and mind; and it is the caused by motion. Impression abides only in the soul. It is produced by experience and is the cause for recollection. It causes recollection only when aroused. This arousing comes in through auxiliary aids such as perception of similar things etc. as stated (in an old verse); "Similar things, unseen entities (such as merit and demerit), constant thinking and so forth arouse the seeds of recollection". Elasticity subsists in certain tangible substances (which have touch). It is that quality which, when its substratum such as a bow is bent or distorted, helps in bringing it to its original shape.

The eight qualities beginning with cognition and ending with demerit together with impression (the second variety of संस्कार) constitute the special qualities of the soul.

Thus the 24 qualities have been explained.

Notes—It will be observed that संस्कार as such cannot be defined properly because its three varieties are so incongruous. In fact the second variety भावना is the only real संस्कार and that word is often used as a synonym for संस्कार. भावना is a special quality while the other two come under common ones. Ballantyne in his translation of the सिद्धान्तमुक्तावली supposes that "the similarity of the three varieties of संस्कार consists in the thing *acting by itself* without an impulse from an external agent". It is doubtful whether any of the three varieties (or any of their substrata) *acts by itself* whatever that may mean.

Here वेग has been translated as velocity though its common meaning is speed. Actually speed or velocity is initially caused by a motion; but in the text it is mentioned as the cause *for motion*—क्रियाहेतु. One way of getting over this difficulty is to take क्रियाहेतु as a बहुव्रीहि compound when it can mean that वेग has क्रिया (motion) as *its cause*. Ch : Bh.'s comments here are 'तत्सद्भावे कार्यमेव प्रमाणमित्याह कार्येति'; this indicates that he had a different reading here (some such reading as कार्यहेतुकश्च or कार्यगम्यश्च). The भा. प. of विश्वनाथ is explicit on this point when it says 'मूर्तमात्रे तु वेगः स्यात्, कर्मजो वेगजः क्वचित्' (V. 158). In its commentary मुक्तावली it is explained further :—'कर्मजवेगज

भेदाद्वेगो द्विविध इत्यर्थः । शरादौ नोदनजनितेन कर्मणा वेगो जन्यते, तेन च पूर्वकर्मनाशः, तत उत्तरकर्म, एवमग्रेपि । विना च वेगं कर्मणः कर्मप्रतिबन्धकत्वात् पूर्वकर्मनाश उत्तरकर्मोत्पत्तिश्च न स्यात् । यत्र वेगवता कपालेन जनिते घटे वेगो जन्यते स वेगजो वेगः ।'. This means—Velocity is of two kinds, that produced by motion and the other by velocity itself. In an object like an arrow initially वेग is caused by the push or pull that is given to it. This initial वेग destroys the previous motion and causes a second motion and so on (till the arrow comes to a stop). Since one motion is an obstacle to another (the preceding one) without this वेग the destruction of the previous motion and the origin of the succeeding one cannot happen. When the वेग in the two halves of a jar sets in motion the jar itself it is an example of velocity created by another velocity. If the reading क्रियाहेतु is correct, K. M. must have meant this उत्तरकर्मोत्पत्ति; but then it is vague and far-fetched, which is unlike the author's method which is explicit and straightforward.

Elasticity is found only in certain earthy substances and not in water, light and air which also have the quality touch. Here also the expression स्पर्शवद्विशेषवृत्ति appears to be somewhat vague. Modern Naiyāyikas would like to exclude वेग and स्थितिस्थापक from qualities and explain them as varieties of action or motion (कर्मन्).

3. कर्मन् [114] इदानीं कर्मोच्यते । चलनात्मकं कर्म । गुण इव द्रव्यमात्रवृत्ति । अविभुपरिमाणेन मूर्तत्वापरनाम्ना सहैकार्थसमवेतम् । पूर्वसंयोगनाशे सत्युत्तरसंयोगहेतुश्च । तच्च उत्क्षेपण-अपक्षेपण-आकुञ्चन-प्रसारणभेदात् पञ्चधा । भ्रमणादयस्तु गमनेनैव गृह्यन्ते ।

Translation—Now activity is being explained. It is of the form of motion and like qualities subsists only in substances. It co-inheres along with dimensions that do not subsist in all-pervading substances. The fact of having such limited dimensions is called मूर्तत्व (=corporeality). Activity is the cause of conjunction at a second place after destroying the previous conjunction. It is of five kinds—(1) moving upwards; (2) moving downwards, (3) contracting; (4) expanding and (5) 'going'. Whirling and other kinds of activity come under 'going'.

Notes—The words कर्मन्, क्रिया and कृति, though commonly used as synonyms, have some difference in meaning. कर्मन् is motion in general, क्रिया is actual performance of an action, and कृति is volitional effort. The word कर्मन् used here should be distinguished from the syntactic object of a verb. The Naiyāyikas distinguish between voluntary activity (यत्नपूर्वक) and involuntary activity (अयत्नपूर्वक). The essential function of every activity is firstly to produce (1) disjunction, (2) then the destruction of the previous contact and (3) finally conjunction with a second place. The origin of an activity occupies one moment and thus an activity after fulfilling its function comes to an end in the fifth movement. It is because of this that कर्मन् is conceived as the direct cause of a disjunction and as leading to a further conjunction (Cf. क्रिया, ततोविभागः, ततः पूर्वदेशसंयोगनाशः, तत उत्तरदेशसंयोगः, ततः क्रियानाशः. vide p. 34).

The division of कर्मन् into five kinds as in the text, though unsatisfactory is being adopted by all writers on the subject in deference to the Sūtrakāra (कणाद). Moreover it does not make any difference by dividing कर्मन् in any other form, or by not adopting any kind of division.

5. **सामान्यम्** [115] (a) अनुवृत्तिप्रत्ययहेतुस्सामान्यम् । द्रव्यादित्रयवृत्ति, नित्यमेकमनेकानुगतञ्च । तद्विविधं परमपरञ्च । परं सत्ता बहुविषयत्वात् । स । चानुवृत्तिमात्रहेतुत्वात् सामान्यमात्रम् । अपरं द्रव्यत्वादि अल्पविषयत्वात् । तच्च व्यावृत्तेरपि हेतुत्वात् सामान्यविशेषः ।

(b) अत्र कश्चिदाह । व्यक्तिव्यतिरिक्तं सामान्यं नास्ति । अत्र ब्रूमः । किमालम्बना तर्हि भिन्नेषु विलक्षणेषु गोपिण्डेष्वेकाकारा बुद्धिः विना सर्वानुगतमेकं किञ्चित् । तदेव सामान्यमिति । ननु तस्य व्यावृत्तिकृतैकाकारा बुद्धिरस्ति । तथाहि । सर्वेष्वपि गोपिण्डेष्वगोपिण्डेभ्यो व्यावृत्तिरस्ति । तेनाऽगोव्यावृत्तिविषय एवायमेकाकारप्रत्ययोऽनेकेषु गोपिण्डेषु । न तु विधिरूपगोत्वसामान्यविषयः । नैवम् । विधिमुखेनैव एकाकारप्रत्ययस्फुरणात् ।

Translation—(a) Generality is the cause for comprehensive class notions. It abides in substances, qualities and activities.

It is eternal, only one and inheres in many things. It is of two kinds—the 'highest' and 'lower'. The highest form is 'existence' (or being)—सत्ता—as it inheres in all the three (द्रव्य, गुण and कर्मन्). This constitutes pure generality as it causes the notion of comprehensiveness only. The 'lower' generality consists of substance-ness, quality-ness, etc. and inheres in less number of things (as compared with the former). It is exclusive generality in as much as it causes both comprehensive and exclusive notions.

(b) In this connection someone says that there is no such thing as generality apart from the individual entity (व्यक्ति). To this we reply as follows. What is the basis for that comprehensive class notion which arises on seeing many individuals of the same class such as cows, each having separate distinguishing features, if there is no unique thing that unifies all the individuals ? That unique thing is what is called generality. (The opponent again objects). That comprehensive notion is due to the difference which each individual has from other things; (e.g. each individual cow is different from all *non-cows* such as horses etc.). It is only this difference that is presented as the object of that comprehensive class notion and not a generality in the positive form. (Answer). It is not so for the unique comprehensive class notion is always presented only in the positive form (and not in the form of a negation).

Notes—Para 115 (b) is to refute the Buddhists who do not accept सामान्य (vide p. 18). Their contention is that a word like गौः denotes primarily the difference that that object, the cow, has from things other than itself. They call this अपोह (vide p. 130)

5. **विशेषः** [116] विशेषो नित्यद्रव्यवृत्तिः । व्यावृत्तिबुद्धिमात्रहेतुः । नित्यद्रव्याण्याकाशादीनि पञ्च, पृथिव्यादयश्चत्वारः परमाणुरूपाश्च ।

Translation—Particularity subsists in eternal substances and is the sole cause of their exclusive notions. The eternal substances are the five beginning with ether together with the atoms of the other four (earth, water, light, air).

6. **समवायः** [117] अयुतसिद्धयोः सम्बन्धः समवायः । स चोक्तः । नन्ववयवावयविनौ अयुतसिद्धौ । तयोस्सम्बन्धस्समवायः । न चैतद्युक्तम् । अवयवातिरिक्तस्याऽवयविनोऽभावात् । परमाणवो हि यथातथा सन्निकृष्टा बहवो घटोऽयं घटोऽयमिति गृह्यन्ते । अत्रोच्यते । अस्त्येकः स्थूलो घट इति प्रत्यक्षा बुद्धिः । न च सा परमाणुष्वनेकेष्वस्थूलेष्वतीन्द्रियेषु भवितुमर्हति । भ्रान्तेयं बुद्धिरिति चेन्न । बाधकाभावात् ।

Translation—Inherence is the relation between two inseparable things. This has been explained earlier (vide p. 13). (Objection by the Buddhist). You say that the 'whole' and its 'parts' are inseparable and so the relation between them is inherence. But this is not correct as there is nothing like a 'whole' apart from its 'parts'. For instance, an object called jar is nothing but an aggregation of many atoms arranging themselves in some particular form. This is answered as follows : 'That the jar is a single gross entity' is the cognition arising out of perception. This cognition does not objectify the atoms which are many, which are not gross and which are not perceptible by the sense-organs. Nor can this cognition be said to be invalid as there is no sublating judgement (to contradict it).

[118] तदेवं षट् पदार्था द्रव्यादयो वर्णिताः । एते च विधिमुखप्रत्ययवेद्यत्वाद् भावरूपा एव ।

Translation-Thus the six categories beginning with substance have been explained. All these six are positive categories as they are presented in our cognitions as positive entities.

7. **अभावः** [119] (a) इदानीं निषेधमुखप्रमाणगम्योऽभावरूपः सप्तमः पदार्थः प्रतिपाद्यते । स चाऽभावः संक्षेपतो द्विविधः, संसर्गाभावोऽन्योन्याभावश्च । संसर्गाभावस्त्रिविधः, प्रागभावः प्रध्वंसाभावोऽत्यन्ताभावश्च ।

(b) उत्पत्तेः प्राक् कारणे कार्यस्याभावः प्रागभावः । यथा तन्तुषु पटाभावः । स चाऽनादिः, उत्पत्तेरभावात् । विनाशी च, कार्यस्य तद्विनाशरूपत्वात् ।

(c) उत्पन्नस्य कारणेऽभावः प्रध्वंसाभावः । विनाश इति यावत् । यथा भग्ने घटे कपालयोर्घटाभावः । स च मुद्गरप्रहारादिजन्यः । उत्पत्तिमानप्यविनाशी, नष्टस्य पुनरनुत्पत्तेः ।

(d) त्रैकालिकोऽभावोऽत्यन्ताभावः । यथा वायौ रूपाभावः ।

(e) अन्योन्याभावस्तु तादात्म्यप्रतियोगिकः, घटः पटो न भवतीति ।

(f) तदेवमर्था व्याख्याताः । ननु ज्ञानात् ब्रह्मणो वा व्यतिरिक्ता अर्था न सन्ति । मैवम् । अर्थानामपि प्रत्यक्षसिद्धत्वेनाऽशक्यापलापत्वात् ।

Translation—(a) Now a seventh category which is of the form of negation and which is cognised in the form of non-existence is being described. This, in short, is of two kinds—relational negation and mutual negation. The former again is of three types—antecedent negation, subsequent negation or destruction, and absolute negation.

(b) Antecedent negation is that which exists in the cause before the product comes into existence, e.g. the negation of cloth in the threads (before cloth is produced). It has no beginning as it has no origin, but it has an end as the coming out of the effect itself constitutes its end.

(c) The absence of a thing in its cause after the thing itself is destroyed is subsequent negation, and hence called destruction; e.g. the absence of the jar in its two halves after it is broken, which is brought about by striking it with a bar or some such thing. It has an origin but no end as a thing destroyed has no second origin.

(d) When the non-existence of a thing can be predicated in respect of all times, past, present and future, it is called absolute negation, e.g. the non-existence of colour in air.

(e) Mutual negation (or difference) is that which denies the identity of two things, e. g. a jar is not a cloth.

(f) Thus the प्रमेय called अर्थ (objects of knowledge) has been described. (An objection). These objects (which have

been described so far) have no separate existence from their cognitions (according to the Vijñānavādin Buddhist) or apart from ब्रह्मन् (according to the Advaitin). [So how do you say that these are different from ज्ञान (= their cognitions) or ब्रह्मन् (= आत्मन्) ?]. (Answer) That these objects have separate existence cannot be denied as their existence is established by valid instruments of cognition such as perception etc. [So their separate existence apart from ज्ञान or ब्रह्मन् should be accepted].

Notes—All the वैशेषिक categories have been explained earlier under para 16 and may be recalled have. In the last para (f) above the author wants to refute both the Vijñānavādin Buddhist and the Advaitin in the same breath, as there is some sort of similarity when they say that objects have not *real* separate existence apart from their cognitions, but have only an illusory (प्रातिभासिक) existence.

The Buddhist philosophers are divided mainly into four schools of thought. Gautama Buddha, it may be noted, never preached any philosophy as such, but only a conduct of life. The differences in thought among the various schools arose from the interpretations which various Buddhist scholars put into his teachings long after his Nirvāṇa. Though a large number of schools and sub-schools—as many as over twenty-six—are found mentioned in ancient Buddhist texts, they were all classed later under the four broad schools—(1) सौत्रान्तिक, (2) वैभाषिक, (3) माध्यमिक (or शून्यवादिन्) and (4) योगाचार (or विज्ञानवादिन्). Who made this classification or how and when it was made is not definitely known. But they are found mentioned as four distinct schools in the स. द. सं. of माधवाचार्य (circa 14th. century), perhaps for the first time. All these schools have certain notions in common among them such as the momentariness of all things, non-existence of a separate आत्मन् , non-acceptance of categories like सामान्य and the rest, acceptance of only two प्रमाण's (प्रत्यक्ष and अनुमान), etc, etc. The सौत्रान्तिक holds that objects as perceived by the sense-organs are real only partially i.e. so long as they produce their cognitions which again are क्षणिक. The वैभाषिक thinks that in a perception, only the form of an object is presented as

स्वलक्षण, and through this the object is to be inferred, thus reducing perception itself to a lower order. The other two schools do not accept the distinction between विषय and विषयिन् (the object and its cognition). The माध्यमिक is the real nihilist and contends that both object and its knowledge have no reality but are only fleeting appearances—संवृताकार. The योगाचार-विज्ञानवादिन् maintains that ज्ञान is the only real thing and that objects reflected in knowledge are just like things in a dream without any *real* separate existence. It is with this school that the Advaitin has some sort of similarity *in certain respects*. For the word ज्ञान the Advaitin would substitute ब्रह्मन् and for असत्व (= non-existence) मिथ्यात्व or मृषात्व (= unreality). Hence the oft-quoted verse—

"असत्वं व्यतिरेकेण मतं विज्ञानवादिनः ।
मृषात्वं व्यतिरेकेण मतं वेदान्तवादिनः ॥

The pluralism of the N. V. system does not agree with either of these views on the ground that it is imposible to controvert valid judgements and experiences gained through perception etc. and hence विषय and विषयिन् should have real separate existence.

(12) बुद्धिः (the fifth प्रमेय)

[120] (a) बुद्धिरुपलब्धिर्ज्ञानं प्रत्यय इत्यादिभिः पर्यायशब्दैर्यदभिधीयते सा बुद्धिः । अर्थप्रकाशो वा बुद्धिः । सा च संक्षेपतो द्विविधा, अनुभवः स्मरणं च । अनुभवो द्विविधः, यथार्थोऽयथार्थश्च ।

(b) तत्र यथार्थोऽविसंवादी । स च प्रत्यक्षादिभिः प्रमाणैर्जन्यते । यथा चक्षुरादिभिरदुष्टैर्घटादिज्ञानम् । धूमादिलिङ्गज्ञानाद्वह्न्यादिज्ञानम् । गोसादृश्यदर्शनाद्गवयपदवाच्यताज्ञानम् । 'अग्निष्टोमेन स्वर्गकामो यजेते'त्यादिवाक्यादग्निष्टोमस्य स्वर्गसाधनताज्ञानम् ।

(c) अयथार्थस्तु अर्थव्यभिचारी, अप्रमाणजन्यः । स त्रिविधः, संशयस्तर्को विपर्य्ययश्च । संशयतर्कौ वक्ष्येते । विपर्ययस्तु अतस्मिंस्तद्ग्रहः । भ्रमे इति यावत् । यथा पुरोवर्त्तिन्यरजते शुक्त्यादौ रजतारोप इदं रजतमिति ।

(d) स्मरणमपि द्विविधं, यथार्थमयथार्थमिति । तदुभयं जागरे । स्वप्ने तु सर्वमेव ज्ञानं स्मरणमयथार्थं च । दोषवशेन तदिति स्थाने इदमित्युदयात् ।

(e) सर्वं ज्ञानं निराकारमेव । न तु ज्ञानेऽर्थेन स्वस्याऽकारो जन्यते साकारज्ञानवादनिराकरणात् । अत एवाऽकारेणाऽर्थानुमानमपि निरस्तम् । प्रत्यक्षसिद्धत्वाद्घटादेः । सर्वं ज्ञानमर्थंनिरूप्यं, अर्थप्रतिबद्धस्यैव तस्य मनसा निरूपणात् । घटज्ञानवानहमित्येव, न तु ज्ञानवानहमित्येतावन्मात्रं ज्ञायते ।

Translation—(a) Cognition (बुद्धि) is that which is denoted by such synonymous words as (बुद्धि = cognition) उपलब्धि (= understanding), ज्ञान (= knowledge), प्रत्यय(= apprehension); etc. Or it can be defined as that which manifests objects (to the mind). It is, in brief, of two kinds—experience and recollection. Experience is also of two kinds—valid and invalid one.

(b) Valid experience is that which conforms to the real nature of the object apprehended and it is caused by valid instruments of cognition such as perception, etc; for example the perception of jar etc. by the faultless visual organ; the inference of fire through the knowledge of the reason, smoke, the apprehension of the potency of a word like गवय by seeing similarity to the cow; the knowledge that the sacrifice ज्योतिष्टोम is the means to attain heaven by hearing or reading such Vedic sentences as 'one desirous of heaven should perform the ज्योतिष्टोम sacrifice.'

(c) Invalid experience is that which does not conform to the real nature of the object apprehended and it is caused by invalid instruments of cognition. It is of three kinds—doubt, ratiocination and misapprehension. The former two are being explained further on (vide paras 128 and 133). Misapprehension is knowing a thing as what it is not and hence an error; for instance on seeing a piece of shell etc. which is not real silver, one apprehends it as 'this is silver'.

(d) Recollection is of two kinds, valid and invalid. Both these kinds occur during wakeful stage. All cognitions arising in dreams are invalid recollections as all that is apprehended as 'that' (in the cognition) appears as 'this' (in the dream) due to certain defects.

(e) All cognitions are devoid of form and no object reflects its own form in the cognition, because the theory that cognition arises with the form of the object reflected in it (साकारविज्ञानवाद) has been refuted. For the same reason the inference of the object from its form reflected in the cognition is rejected as the existence of objects like a jar etc. is established by perception. All cognitions are fully defined by the objects presented in them and without being related to the objects no cognition can be apprehended by the mind; because the knowledge (or judgement) that arises from any such apprehension is of the form 'I have the cognition *of the jar*' and not merely of the form 'I have a cognition'.

Notes—The division of बुद्धि or ज्ञान has been shown on p. 39 and for the explanation of valid and unvalid cognitions see the end of प्रमाण section in Part I. The author has not directly refuted the साकारविज्ञानवाद but has just pointed it in para 119 (f). A fuller discussion on the topic would be out of place in a primer like this—vide notes under that para.

(13) मनस् (The sixth प्रमेय)

[121] अन्तरिन्द्रियं मनः । तच्चोक्तमेव ।

Translation—Mind is the internal sense organ and it has been explained already (vide para 80 f.).

(14) प्रवृत्तिः (The seventh प्रमेय)

[122] प्रवृत्तिर्धर्माधर्ममयी यागादिक्रिया । तस्या जगद्व्यवहारसाधकत्वात् ।

Translation—Activity consists in performing such acts as sacrifices etc. which ultimately lead to merit and demerit. This constitutes the basis for all things going on in the world (i.e. without activity life does not function).

(15) दोषः (The eighth प्रमेय)

[123] दोषा रागद्वेषमोहाः । राग इच्छा । द्वेषो मन्युः, क्रोध इति यावत् । मोहो मिथ्याज्ञानं, विपर्यय इति यावत् ।

Translation—Defects are attachment, aversion and ignorance. Attachment constitutes desire, aversion anger and ignorance false knowledge or misapprehension.

(16) प्रेत्यभावः (The ninth प्रमेय)

[124] पुनरुत्पत्तिः प्रेत्यभावः । स चात्मनः पूर्वदेहनिवृत्तौ अपूर्वदेहसंघातलाभः ।

Translation—Rebirth is having a fresh origin and consists in the soul getting into another body after leaving the present one.

(17) फलम् (The tenth प्रमेय)

[125] फलं भोगः, सुखदुःखानुभवः ।

Translation—Result is enjoyment; i.e. experience of pleasure or pain.

(18) दुःखम् (The eleventh प्रमेय)

[126] पीडा दुःखम् । तच्चोक्तमेव ।

Translation—Pain is trouble and has already been explained (vide para 111 c).

(19) अपवर्गः (The twelfth प्रमेय)

[127] (a) मोक्षोऽपवर्गः । सचैकविंशतिप्रभेदभिन्नस्य दुःखस्याऽत्यन्तिकी निवृत्तिः । एकविंशतिप्रभेदास्तु शरीरं, षडिन्द्रियाणि, षड्विषयाः, षड्बुद्धयः, सुखं, दुःखं, चेति गौणमुख्यभेदात् । सुखं तु दुःखमेव दुःखानुषङ्गात् । अनुषङ्गोऽविनाभावः । स चायमुपचारो मधुनि विषसंयुक्ते मधुनोऽपि विषपक्षनिक्षेपवत् ।

(b) स पुनरपवर्गः कथम् ? उच्यते । शास्त्राद्विदितपदार्थसमस्ततत्वस्य, विषयदोषदर्शनेन विरक्तस्य, मुमुक्षोः, ध्यायिनो, ध्यानपरिपाकवशात् साक्षात्कृतात्मनः, क्लेशहीनस्य, निष्कामकर्मानुष्ठानादनागतधर्माधर्मावनर्जयतः, पूर्वोपात्तधर्माधर्मप्रचयं योगप्रभावात् विदित्वा समाहृत्य भुञ्जानस्य, पूर्वकर्मनिवृत्तौ वर्तमानशरीरादिविग-

मेऽपूर्वशरीराभावादेकविंशतिदुःखसंबन्धो न भवति, कारणाभावात् । योऽयमेकविंशतिदुःखहानिः सोऽपवर्गः ।

Trnslation—(a) Salvation is release from birth. This consists in complete cessation of all the twentyone forms of suffering. These twentyone are those arising from (i) the body, (2 to 7) the six sense-organs, (8 to 13) the six objects of these six, (14 to 19) the six kinds of cognition (from the six senses), (20) pleasure, and (21) pain. These include those that arise directly as well as indirectly (from all these 21). Pleasure is also considered suffering as it is always mixed with pain. **अनुषङ्ग** here means 'always mixed up with or accompanied by (pain)'. This implied statement (that pleasure is pain) is (to be understood) in the same manner as honey mixed with poison becomes itself poison.

(b) How does this salvation come about ? This is being described now. When a man has understood the real nature of all things from the Śāstras and has cognised the defects in the objects of enjoyment, he loses attachment to these and becomes desirous of release and (to gain that) he takes to meditation. On attaining perfection in meditation he realises the true nature of the soul and thus gets rid of defects and sufferings. Then by performing actions without any attachment to results he ceases acquiring further merit or demerit. By his yogic powers (acquired by meditation) he comes to know his past merits and demerits (which caused his present birth). He collects them together and ends them by enjoying their effects. By this he exhausts all his previous Karma (ie. their effects) and when the present body dies off, his soul has no new body to enter into and thus loses all contact with the twentyone forms of suffering for want of their cause (the body). This release from these 21 forms of suffering is salvation.

Thus the 12 **प्रमेय**'s—the second category in N. S. I-1-1—has been explained. Next the author begins to describe briefly he other categories, **संशय**, etc.

(20) **संशयः** (The third category)

[128] (a) इदानीं संशयमाह । एकस्मिन् धर्मिणि विरुद्धनानार्थावमर्शः संशयः । स त्रिविधः । तत्राद्यो विशेषादर्शने सति समानधर्मदर्शनजः, यथा स्थाणुर्वा पुरुषो वेति । एकस्मिन्नेव हि पुरोवर्तिनि द्रव्ये स्थाणुत्वनिश्चायकं वक्रकोटरादिकं, पुरुषत्वनिश्चायकं शिरःपाण्यादिकं वा विशेषमपश्यतः, स्थाणुपुरुषयोः समानधर्ममूर्ध्वतादिकं च पश्यतः पुरुषस्य भवति संशयः, किमयं स्थाणुर्वा पुरुषो वेति ।

(b) द्वितीयस्तु संशयो विशेषादर्शने सति विप्रतिपत्तिजः, यथा शब्दो नित्य उतानित्य इति । तथाहि । एको ब्रूते शब्दो नित्य इति । अपर अनित्य इति । तयोर्विप्रतिपत्त्या मध्यस्थस्य पुंसो विशेषमपश्यतो भवति संशयः किमयं नित्य उतानित्य इति ।

(c) तृतीयो विशेषादर्शने सति असाधारणधर्मदर्शनजः । स यथा नित्यादनित्याच्च व्यावृत्तेन भूमात्रसाधारणेन गन्धवत्वेन विशेषमपश्यतो भुवि नित्यत्वानित्यत्वसंशयः । तथाहि । सकलनित्यव्यावृत्तेन गन्धवत्वेन योगात् भूः किमनित्या, उत सकलानित्यव्यावृत्तेन तेनैव योगान्नित्या, इति संशयः ।

Translation—(a) Now doubt is being explained. When in one and the same object there arises the apprehension of two or more conflicting notions, that becomes doubt. It is of three kinds. The first variety is that caused by the observation of certain common attributes of two things while not noticing any differentiating features between the two; e.g. whether the object ahead is a tree stump or a person. In this case on seeing an object at a distance the observer does not notice any curvedness or crevices that would enable the object being recognised as a tree stump; nor does he see any clear definition of head, hands, etc. which would enable the object being recognised as a person. At the same time he observes some features common to both the stump and a person such as tallness, shortness, etc. Then he gets a doubt in the form 'Is this a stump or a person ?'.

(b) The second variety of doubt is that arising from the difference of opinion about one and the same thing when there

is no special reason to ignore or accept either; e.g. whether sound is eternal or not. It happens like this. When one says that sound is eternal and another that it is not, the hearer, who sees no special grounds either way, doubts whether sound is eternal or not.

(c) The third variety of doubt is that caused by observing some peculiar attitude or characteristic, without noticing anything special, in an object. For example when one apprehends smell which is the special quality of earth, but which does not indicate whether it subsists in eternal or non-eternal things and when he does not see any special reason (to decide either way), the doubt arises whether earth is eternal or not. Because it will be non-eternal if smell is not present in eternal things and it will be eternal if smell is not present in non-eternal things.

Notes—The theory of doubt is as important and abstruse as that of knowledge and the fact that Gautama has mentioned it as the third category just after प्रमाण and प्रमेय shows that its importance was recognised from very early times. He defines संशय as समानानेकधर्मोपपत्तेर्विप्रतिपत्तेरुपलब्ध्यनुपलब्ध्यव्यवस्थातश्च विशेषापेक्षो विमर्शः संशयः (I-1-23). The vagueness of this Sūtra has given rise to various interpretations. The भाष्यकार explains it as five different types of doubt caused by—

(1) समानधर्म = साधारणधर्म as in स्थाणुर्वा पुरुषो वा

(2) अनेकधर्म = असाधारणधर्म as in भूर्नित्या वाऽनित्या वा or as in शब्दो नित्यो वाऽनित्यो वा.

(3) विप्रतिपत्ति = विरुद्धवाक्य as in आत्मा अस्ति उत नास्ति.

(4) उपलब्ध्यव्यवस्था = An indecision caused by a positive cognition such as water is cognised as existing in a pond as also in a mirage. From this a doubt arises whether existing water is the object of cognition or non-existing water.

(5) अनुपलब्ध्यव्यवस्था = An indecision caused by a negative cognition such as there is *no* water in this pond, which is covered

up by grass etc. This also gives rise to the same kind of doubt as in No. 4.

The वार्तिककार is definite in saying that the first three are the only three varieties of doubt and that the portion 'उपल······स्थातश्च' in the Sūtra is only a qualification for the first part. K. M. has followed the वार्तिककार and has summarised his views as in the text above. The न्यायसार of भासर्वज्ञ follows the भाष्यकार in giving five varieties; but the examples he gives are different except in the first and fourth cases, which fact is indicative of another interpretation of the Sūtra.

(1) समानधर्मात् —किमयं स्थाणुर्वा पुरुषो वेति ।
(2) अनेकधर्मात —किमयं शब्दो नित्योऽनित्यो वेति ।
(3) विप्रतिपत्तेः —एके भौतिकानीन्द्रियाण्याहुः, अन्ये त्वभौतिकानीति ।
(4) उपलब्धेः —किं सदुदकमुपलभ्यते, उतासदिति ।
(5) अनुपलब्धेः —किं विद्यमानः पिशाचो नोपलभ्यते, उताविद्यमान इति ।

The modern Naiyāyikas would limit संशय to two varieties, the first arising from the grasp of साधारणधर्म and the second arising from that of असाधारणधर्म. The examples are the same as those given by भासर्वज्ञ (quoted above); (Vide S. M. under V. 130.).

Of these the first one, स्थाणुर्वा पुरुषो वा, is the real example for doubt as it is understood ordinarily. Here also there is some controversy between the ancient and modern schools. The former say that it is only one doubt—पुरोवृत्तिपिण्डविशेष्यक-स्थाणुत्वपुरुषत्वप्रकारकज्ञानम्—which is in conformity with their definition एकधर्मिविशेष्यकविरुद्धनानाधर्मप्रकारकज्ञानं संशयः. The modern school hold that नानाधर्मप्रकारक in the above is not sufficient to avoid अतिव्याप्ति in such valid cognitions as घटो द्रव्यं पृथिवी च and so the definition should be stated as एकधर्मि विशेष्यक-विरुद्धभावाभावप्रकारकज्ञानम्. According to them the above doubt would resolve itself into a mixture of two doubts as पिण्डविशेष्यकस्थाणुत्वतदभावप्रकारकं and पिण्डविशेष्यकपुरुषत्वतदभावप्रकारकं; (in other words as 'whether it is a stump or not' and 'whether it is a man or not.') This depends mainly on one's experience, whether he apprehends it as one cognition or as two. All

these above differences regarding varieties of doubt are due to the causes of the doubt and not in the actual fact of it.

(21) प्रयोजनम् (The fourth category)

[129] येन प्रयुक्तः प्रवर्तते तत् प्रयोजनम् । तत्तु सुखदुःखाप्तिहानी। तदर्था हि प्रवृत्तिस्सर्वस्य स्वस्थस्य ।

Translation—That by which one is urged to act is purpose (or motive). It consists in gaining pleasure and avoiding pain, for actions of all men in sound health are directed to the attainment of these two.

(22) दृष्टान्तः (The fifth category)

[130] वादिप्रतिवादिनोस्सम्प्रतिपत्तिविषयोऽर्थो दृष्टान्तः । स द्विविधः । एकस्साधर्म्यदृष्टान्तः, यथा धूमवत्त्वस्य हेतोर्महानसम् । द्वितीयस्तु वैधर्म्यदृष्टान्तः, यथा तस्यैव महाह्रदः ।

Translation—Example is that thing about which there is good agreement between the two parties in a debate. It is of two kinds. The first is example through similarity as the kitchen for the *probans* smoke in an inference of fire. The second one is example through dissimilarity, as the pond for the same *probans*.

(23) सिद्धान्तः (The sixth category)

[131] प्रामाणिकत्वेनाभ्युपगतोऽर्थः सिद्धान्तः । स चतुर्धा, सर्व-तन्त्र-प्रतितन्त्र-अधिकरण-अभ्युपगमसिद्धान्तभेदात् । तत्र सर्वतन्त्र-सिद्धान्तो यथा धर्मिमात्रसद्भावः । द्वितीयो यथा नैयायिकस्य मते मनस इन्द्रियत्वम् । तद्धि समानतन्त्रे वैशेषिके सिद्धम् । तृतीयो यथा क्षित्यादिकर्तृत्वसिद्धौ कर्तुस्सर्वज्ञत्वम् । चतुर्थो यथा जैमिनीयस्य नित्यानित्यविचारो भवतु, अस्तु तावच्छब्दो गुण इति ।

Translation—An established conclusion is that which is accepted as authoritative. It is of four kinds—(1) that which is accepted by all Śāstras; (2) that which ls accepted as proved in another Śāstra; (3) that which follows as a corollary to an establlshed conclusion; and (4) that which is

acceptable as such only on the basis of another thesis. Instances of the first kind are such statements as 'everything possessing qualities exists.' Those of the second are such as the fact that the mind is a sense-organ as proved in the sister system Vaiśeṣika. Those of the third kind occur in such facts as 'God is Omniscient' which follows as a corollary to the conclusion 'Earth etc. are created by a maker'. Examples of the fourth variety are such statements as sound is accepted as a quality by the followers of Jaimini (i.e. the Mīmāmsakas) only as the basis for discussing whether it is eternal or not.

Notes—Regarding सिद्धान्त also there are wide differences among the commentators in the interpretation of the Śūtras of Gautama on the subject (vide N. S. I. 1-26 to 31); and these are mainly verbal rather than material. सिद्धान्त means an established and accepted conclusion on any topic. This may vary from system to system and from school to school within a system. One system or school may accept or reject, fully or partly, the सिद्धान्त of another. Any division of सिद्धान्त as of so many varieties on the basis of this fact will not elucidate the subject. Consider the example 'mind is a sense organ' given for the 2nd variety of सिद्धान्त in the text. The same example has been given for the 3rd and 4th varieties by other authors, showing thereby how widely they differ in the interpretation of the Sūtras. In the fourth example there is no question of any सिद्धान्त. The Mīmāmsaka argues that sound is eternal within the framework of his system and the Naiyāyika rejoins with equal vehemence that it is not. Neither side yields to the other and no conclusion emerges as both appear equally reasonable. In his eagerness to follow the Sūtrakara K. M. has briefly paraphrased the words of the Sūtras, as in most other topics.

(24) **अवयवाः** (The seventh category)

[132] अनुमानवाक्यैकदेशा अवयवाः । ते च प्रतिज्ञादयः पञ्च । तथा च न्यायसूत्रम्—"प्रतिज्ञाहेतूदाहरणोपनयनिगमनान्यवयवाः" (I. 1-32.)

तत्र साध्यधर्मविशिष्टपक्षप्रतिपादनं प्रतिज्ञा, यथा पर्वतो वह्निमान् ।

पञ्चम्यन्तं तृतीयान्तं वा लिङ्गप्रतिपादकं वचनं हेतुः, यथा धूमवत्वात्, धूमवत्वेन वा।

सव्याप्तिकं दृष्टान्तवचनमुदाहरणं, यथा यो यो धूमवान् स सोऽग्निमान् यथा महानसम्।

पक्षे लिङ्गोपसंहार उपनयः, यथा धूमवांश्चायं, तथा चायमिति वा।

पक्षे साध्योपसंहारो निगमनं, यथा तस्मादग्निमान्, तस्मात्तथा इति वा।

एते च प्रतिज्ञादय अनुमानवाक्यस्याऽवयवा इवाऽवयवाः। नतु समवायिकारणं, शब्दस्याकाशसमवेतत्वात्।

Translation—The several steps used in stating an inference for others are called members of syllogism. They are five in number beginning with प्रतिज्ञा as stated in N. S. I. 1-32—(1) प्रतिज्ञा = general enunciation of the minor term as possessing, the major term, as 'the mountain has fire', (2) हेतु = the statement of the *probans* in the ablative or instrumental case, as 'because of the presence of smoke'; (3) उदाहरण = the statement of an example along with the व्याप्ति, as 'wherever there is smoke there is fire as in the kitchen'; (4) उपनय = statement that the subject in question possesses the reason (which is concomitant with the *probandum*), as 'the mountain has smoke or like that'; and (5) निगमन = the statement emphasising the existence of the *probandum* in the subject, as 'therefore the mountain has fire' or simply 'it is also like that.' These five statements serve as parts or limbs of the body of an inference and so are called अवयव's. They are not to be understood as inherent causes as parts are to the whole; because sound inheres only in ether (and these statements are only sound in the form of particular words).

(N. B. All these have been explained earlier under अनुमान, and are only repetitions).

(25) तर्कः (The eighth category)

[133] तर्कोऽनिष्टप्रसङ्गः। स च सिद्धव्याप्तिकयोर्धर्मयोर्व्याप्याङ्गीकारे व्यापकप्रसञ्जनरूपः। यथा 'यद्यत्र घटोऽभविष्यत् तर्हि

भूतलमिवाद्रक्ष्यत्' इति । स चायं तर्कः प्रमाणानामनुग्राहकः । तथाहि । पर्वतोऽयं साग्निरुतानग्निरिति सन्देहानन्तरं यदि कश्चिन्मन्येतानग्निरिति, तदा तं प्रति 'यद्ययमनग्निरभविष्यत्तदाऽधूमोप्यभविष्यत्' इत्यधूमवत्वप्रसञ्जनं क्रियते । स एष प्रसङ्गस्तर्क इत्युच्यते । अयञ्चानुमानस्य विषयशोधकः । प्रवर्तमानस्य धूमवत्वलिङ्गकानुमानस्य विषयमग्निमनुजानाति । अनग्निमत्वस्य प्रतिक्षेपात् । अतोऽनुमानस्य भवत्यनुग्राहकः । अत्र कश्चिदाह 'तर्कस्संशय एवान्तर्भवती' ति । तन्न । एककोटिनिश्चितविषयत्वात्तर्कस्य ।

Translation—तर्क is a kind of hypothetical reasoning leading to an undesirable result (hence *reductio ad absurdum*). It consists in arguing that if, out of two concomitant things, the concomitant (व्याप्य) one is present, the presence of the other, its correlate व्यापक, should also be present; e.g. if a jar were to exist here it should be perceivable like the spot (where it stands). This kind of hypothetical reasoning helps the instruments of valid cognition. It is in this way. Suppose someone concludes that there is no fire in the hill after doubting about its existence (from seeing smoke issuing from it). Then if another were to tell him 'If there is no fire in the hill there would be no smoke also', this kind of argument is what is called तर्क. It helps in establishing the presence of the *probandum* in the subject which is the object of the inference. Because it points out the absurdity of the hill being smoky in the absence of fire (its cause), it is an aid to inference. Someone says that तर्क is included under doubt; but this is not correct as तर्क has only one thing as its object and that too a definite one (while doubt objectifies two contradictory things in one object).

(26) निर्णयः (The ninth category)

[134] निर्णयोऽवधारणज्ञानम् , तच्च प्रमाणानां फलम् ।

Translation—निर्णय (or decisive knowledge) is firm conviction and it comes as the result of the instruments of valid cognition.

(27) वाद-जल्प-वितण्डाः

(The 10th, 11th and 12th categories)

[135] (a) तत्त्वबुभुत्स्वोः कथा वादः । स चाष्टनिग्रहाणामधिकरणम् । ते च न्यून-अधिक-अपसिद्धान्त-हेत्वाभासपञ्चकमित्यष्टौ ।

(b) उभयसाधनवती विजिगीषुकथा जल्पः । स च यथासंभवं परपक्षे दूषिते स्वपक्षस्थापनपर्यवसानश्च ।

(c) स्वपक्षस्थापनाहीना परपक्षदूषणावसाना वितण्डा । नास्य वैतण्डिकस्य स्थाप्यः पक्षोऽस्ति । कथा तु नानावक्तृकपूर्वोत्तरपक्षप्रतिपादकवाक्यसन्दर्भः ।

Translation—(a) Discussion (वाद) is argument between two persons or parties desirous of arriving at the truth (of the topic under discussion). It is in this that the eight clinchers or points of defeat are employed (to win over the opponent). These eight are (1) deficiency (in the reasoning), (2) superfluity (by bringing in extraneous or irrelevant points), (3) stating something contrary to established conclusions, and (4 to 8) the five fallacious reasons.

(b) Disputation (जल्प) is also argument but with the desire of winning over the opponent and it accomplishes two things. It usually ends in establishing one's view-point by demolishing the opponent's.

(c) Wrangling (वितण्डा) is (destructive) argument which does not establish one's own position, but which is directed only to find fault with the opponent's position. In fact the wrangler has no position of his own to establish. कथा or discussion (under which broad head come all these three) constitutes the arguments put forth by a number of persons assembled together, some raising objections and others trying to answer them (regarding any topic proposed for decision).

Notes—The word कथा is used here for discussion or argumentation and Gautama has divided it under three heads. The first, वाद, is carried on by two parties in a healthy atomsphere with the sole object of arriving at the truth and understanding the topic under discussion in all its aspects. This is seen even now in Sanskrit *Tols* where the students after taking

lessons from the Guru, gather together and discuss throughly what they have learnt. This is also called चिन्तन. The second variety, जल्प, is that in which both parties know where they stand, but in which each wants to defeat the other by establishing his superiority. This dual purpose is what the author has in mind when he says उभयसाधनवती. This can be compared more or less to the discussions that take place in शास्त्रसदस्. Such Śāstraic meetings used to be held till recently under royal patronage in the princely States in the South. The third, वितण्डा, is arguing without any purpose except to find fault with the opponent. Examples of this type can be found here and there in the controversial works of reputed authors in all the systems.

(28) हेत्वाभासाः (The 13th category)

[136] (a) उक्तानां पक्षधर्मतादीनां मध्ये येनकेनापि रूपेण हीना अहेतवः। तेऽपि कतिपयहेतुरूपयोगात् हेतुवदाभासमाना हेत्वाभासाः। ते च असिद्ध-विरुद्ध-अनैकान्तिक-प्रकरणसम-कालात्ययापदिष्टभेदात् पञ्चैव।

(b) अत्रोदयनेन 'व्याप्तस्य हेतोः पक्षधर्मतया प्रतीतिः सिद्धिः, तदभावोऽसिद्धि'रित्यसिद्धिलक्षणमुक्तम्। तच्च यद्यपि विरुद्धादिष्वपि सम्भवतीति साङ्कर्यं प्रतीयते, तथापि यथा न साङ्कर्यं तथोच्यते। यो हि साधने पुरः परिस्फुरति, समर्थश्च दुष्टज्ञप्तौ, स एव दुष्टज्ञप्तिकारणं, दूषणमिति यावत्, नान्य इति। तेनैव पुरःस्फूर्तिकेन दुष्टज्ञप्तौ ज्ञापितायां कथापर्यवसाने जाते तदुपजीविनोऽन्यस्यानुपयोगात्। तथा च सति यत्र विरोधः साध्यविपर्ययव्याप्त्याख्यो दुष्टज्ञप्तिकारकः स एव विरुद्धो हेत्वाभासः। एवं यत्र व्यभिचारादयस्तथाभूतास्तेऽनैकान्तिकादयः। ये पुनर्व्याप्तिपक्षधर्मताविशिष्टहेतुस्वरूपज्ञप्त्यभावेन पूर्वोक्ता असिद्ध्यादयो दुष्टज्ञप्तिकारकाः दूषणानीति यावत्।

Translation—(a) A *probans* becomes its opposite (अहेतु) if it fails to satisfy any one out of the five conditions, such as existence in the subject etc (explained under अनुमान). Because it *appears* to be like a valid reason by virtue of conforming to only some of those conditions, it is called हेत्वाभास, one resem-

bling like a valid reason. They are only five in number—(1) the unfounded or unproved reason; (2) the contradictory one; (3) the inconstant or straying one; (4) the opposing or counterbalanced one; and (5) the stultified or belated one.

(b) In this connection उदयन says, "A reason is said to be proven (सिद्ध) if its concomitance with the *probandum* is established and if it is found to exist in the subject. If it fails in this respect it is said to be unproven (असिद्ध). This definition applies to the 'contradictory' and other faulty reasons and therefore suffers from the defect of अतिव्याप्ति. We shall however explain it in such a manner as to avoid this overlapping. With respect to faulty reasons that condition which is first detected as making it faulty is to be regarded as 'fallacy'. When one fallacy of the reason is indicated by this faulty condition alone, that fact itself would be sufficient to close the discussion and there is no need to point out other fallacies that may be detected later. In view of this, only that reason which is concomitant with the contrary of the *probandum*, can be called 'contradictory'. Similarly in cases where the fallacy first detected is inconstancy etc. those reasons become inconstant etc. In like manner where it is first detected that the reason is not invariably concomitant with the *probandum* or that it does not exist in the subject, that reason is to be taken as the 'unproven' one (असिद्ध) etc.

1. **असिद्धः** [137] (a) तथाभूतोऽसिद्धस्त्रिधा, आश्रय-स्वरूप-व्याप्यत्वासिद्धभेदात् । तत्र यस्य हेतोराश्रयो नावगम्यते स आश्रयासिद्धः । यथा गगनारविन्दं सुरभि, अरविन्दत्वात्, सरोजारविन्दवत् । अत्र गगनारविन्दमाश्रयः । स च नास्त्येव ।

(b) अयमप्याश्रयासिद्धः, घटोऽनित्यः कार्यत्वात्, पटवत् । नन्वत्राश्रयस्य घटस्य सत्वान्नाश्रयासिद्धिः । सिद्धसाधनन्तु स्यात्, सिद्धस्य घटानित्यत्वस्य साधनात् । मैवम् । नहि स्वरूपेण कश्चिदाश्रयो भवत्यनुमानस्य, किन्तु सन्दिग्धत्वेन । यथोक्तम्—'नानुपलब्धे न निर्णीते, अपितु सन्दिग्धे न्यायः प्रवर्तते' । न च घटेऽनित्यत्वसन्देहोऽस्ति । अनित्यत्वस्य निश्चितत्वात् । तेन यद्यपि स्वरूपेण घटो विद्यते, तथाप्यनित्यत्वसन्देहाभावान्नाश्रयः, इत्याश्रयासिद्ध एव हेतुः ।

Translation—(a) The unproved reason as explained above is of three forms :— (i) that which has an unestablished subject; (ii) that in which the actual form of the reason is not proved; and (iii) that which has its invariable concomitance with the *probandum* not proved. Of these the first variety is that in which the subject (पक्ष) of the *probans* is not known or established, as in the syllogism; *the sky-lotus* is fragrant, because it is a lotus, similar to one in the pond. Here the subject, *sky-lotus*, is a non-existing (i.e. imaginary) thing (and so unknown). [In this the पक्ष as it is, is unknown. So the author gives another example where the पक्ष, though well-known is lacking in its attribute पक्षता.] Here is another example of आश्रयासिद्ध—'A jar is non-eternal, because it is a product, like a cloth.' (An objection) Here the subject 'jar' is not an unknown or unproved thing. So how can you classify this as आश्रयासिद्ध ? At best it can be said to be a case of superfluity (proving a proved thing) as it only proves the non-eternality in a jar which is already established. (Answer). It is not so, because a thing by itself does not become the subject of an inference. It becomes a subject only when the existence of the *probandum* in it is in doubt as has been laid down (in the Nyāya Bhāṣya):—"A syllogism operates neither with reference to a thing totally unknown, nor with reference to a thing definitely known, but with reference to a thing the presence of which is in doubt.'' There is no doubt about the existence of non-eternality in a jar as it is a definitely known fact. Even though the jar as such is a known object, it cannot be considered as पक्ष in this inference as there is no doubt about the existence of the *probandum* (non-eternality) in it. [In other words it lacks the attribute पक्षता which has been defined by K. M. as सन्दिग्धसाध्यवत्वं, vide para 57]. So the *probans* (in the above syllogism) is आश्रयासिद्ध.

[138] (a) स्वरूपासिद्धस्तु स उच्यते यो हेतुराश्रये नावगम्यते । यथा सामान्यमनित्यं, कृतकत्वादिति । कृतकत्वं हेतुराश्रये सामान्ये नैवास्ति । भागासिद्धोऽपि स्वरूपासिद्ध एव । यथा पृथिव्याद-यश्चत्वारः परमाणवोऽनित्याः, गन्धवत्वात् । गन्धवत्वं हेतुः पक्षीकृतेषु सर्वेषु नास्ति, पृथिवीमात्रवृत्तित्वात् । अत एव भागे स्वरूपासिद्धः ।

(b) तथा विशेषणासिद्ध-विशेष्यासिद्ध-असमर्थविशेषणासिद्ध-असमर्थ-विशेष्यासिद्धादयः स्वरूपासिद्धभेदाः । तत्र विशेषणासिद्धो यथा, शब्दो नित्यः, द्रव्यत्वे सत्य-स्पर्शत्वात् । अत्र द्रव्यत्वविशिष्टा-स्पर्शत्वं हेतुः, नास्पर्शत्वमात्रम् । शब्दे द्रव्यत्वं नास्ति, तस्य गुण-त्वात् । अतो विशेषणासिद्धः । न चासति विशेषणे द्रव्यत्वे तद्वि-शिष्टस्पर्शत्वमस्ति, विशेषणस्याभावे विशिष्टस्याप्यभावात् । यथा दण्डमात्राभावे पुरुषाभावे वा दण्डविशिष्टपुरुषस्याभावः । तेन हेतोः स्वरूपासिद्धत्वम् ।

(c) विशेष्यासिद्धो यथा, शब्दो नित्यः, अस्पर्शत्वे सति द्रव्यत्वा-दिति । अत्र विशेष्याभावे विशिष्टहेतुर्नास्ति पूर्ववत् ।

(d) असमर्थविशेषणासिद्धो यथा, शब्दो नित्यः गुणत्वे सत्यकार-णत्वात् । अत्र गुणत्वस्य विशेषणस्य न किञ्चित्सामर्थ्यमस्ति । विशेष्य-स्याऽकारणत्वस्यैव नित्यत्वसाधनसामर्थ्यात् हेतोरसमर्थविशेषणत्वम् । ननु विशेषणं गुणत्वं शब्देऽस्त्येव । तत्कथं विशेषणाभावः । सत्यं । अस्त्येव गुणत्वं, किन्तु न तद्विशेषणम् । तदेव हेतोर्विशेषणं यदन्यव्य-वच्छेदेन प्रयोजनवत् । गुणत्वं तु निष्प्रयोजनमत उक्तमसमर्थमिति ।

(e) असमर्थविशेष्यासिद्धो यथा तत्रैव तद्व्यत्ययेन प्रयोगः । शब्दो नित्योऽकारणत्वे सति गुणत्वात्, इति । अत्र विशेषणमात्रस्य नित्यत्व-साधने सामर्थ्यात् विशेष्यमसमर्थम् । शेषं पूर्ववत् ।

Translation—138 (a) A reason is said to be स्वरूपासिद्ध when its presence in the subject is not proved; e.g. 'Generality is non-eternal because it is a product.' Here the reason 'being a product' is absent in the subject generality. 'A partially unknown reason' (भागासिद्ध) also comes under स्वरूपासिद्ध ; for instance in an inference like 'the atoms of the four substances beginning with earth are non-eternal because they have smell,' the reason 'having smell' is not found in the subject as a whole but only in a part of it, the earth-atoms. Therefore, being 'partially unknown' it becomes स्वरूपासिद्ध.

(b) Similarly, (i) when the qualification is not proved; (ii) when the qualified is not proved; (iii) when the qualification is impotent; or (iv) when the qualified is impotent (and similar instances) all come under स्वरूपासिद्ध. An example of the first form is—'sound is eternal because being a substance it

has no touch.' Here the absence of touch as qualified by 'being a substance' is the reason and not mere 'absence of touch'. Sound is not a substance but a quality and therefore the qualification of the reason is un-proved. When the qualification part is absent, the whole qualified thing is also absent, just as when either the stick or the person is absent, the qualified whole, 'man-with-stick' is also absent. Thus follows the fallacy स्वरूपासिद्धत्व.

(c) An example of the second form (विशेष्यासिद्ध) occurs in an inference like 'sound is eternal because having no touch it is a substance'. Here the qualified part (विशेष्य) of the reason is absent in the subject and hence the full reason is also absent as explained above.

(d) An instance where the qualification of the reason is impotent (= not serving any purpose), is 'sound is eternal because being a quality it has no cause' —Here the qualification 'गुणत्व' serves no purpose as the qualified portion (अकारणत्व) alone is sufficient to prove 'eternality'. So the reason has the fault of 'impotent' qualification. [An impotent qualification is as good as a non-existing one]. For want of the qualification the whole qualified thing becomes unproved and thus the fallacy स्वरूपासिद्धि occurs. (An objection). Now sound is a गुण and so how can you say that गुणत्व is absent in it? (Answer). True, sound is a गुण, but it does not serve any purpose here by being used as a qualification of the reason. Only that thing can be considered a (useful) qualification if it serves the purpose of making the reason distinct from other things. Here the qualification गुणत्व serves no such useful purpose and is therefore termed as असमर्थ (impotent) [and so becomes as good as non-existent].

(e) The defect of 'the qualified being impotent' occurs when in the above inference the reason is stated with the attribute and the substantive interchanged, as 'sound is eternal because being without a cause it is a quality'. [Here also गुणत्व serves no useful purpose even though it is mentioned as the substantive; and so the defect remains the same with a slight change in name.]

[139] (a) व्याप्यत्वासिद्धस्तु स उच्यते यत्र हेतोर्व्याप्तिर्नावगम्यते। स द्विविधः। एकस्साध्येनाऽसहचरितः। अपरस्सोपाधिकसाध्यसम्बद्धः। तत्र प्रथमो यथा—'यत्सत् तत् क्षणिकं, यथा जलधरः, संश्च विवादास्पदीभूतः शब्दादिः' इति। अत्र शब्दादिः पक्षः, क्षणिकत्वं साध्यं, सत्वं हेतुः। नास्य हेतोः क्षणिकत्वेन सह व्याप्तौ प्रमाणमस्ति।

(b) इदानीं उपाधिसहितो व्याप्यत्वासिद्धः प्रदर्श्यते। तद्यथा-'श्यामोऽयं मैत्रीतनयः मैत्रीतनयत्वात्'। अत्र मैत्रीतनयत्वेन श्यामत्वं साध्यते। न च मैत्रीतनयत्वं श्यामत्वे प्रयोजकम्। किन्तु शाकाद्याहार एव। प्रयोजकश्चोपाधिरुच्यते। अतो मैत्रीतनयत्वस्य श्यामत्वेन सम्बन्धे शाकाद्याहारपरिणाम उपाधिः। यथाऽग्नेर्धूमसम्बन्धे आर्द्रेन्धनसंयोगः। अत उपाधिसम्बन्धाद् व्याप्तिर्नास्तीति व्याप्यत्वासिद्धोऽयं मैत्रीतनयत्वं हेतुः।

(c) तथाऽपरोपि व्याप्यत्वासिद्धः, यथा 'क्रत्वन्तर्वर्त्तिनी हिंसा अधर्मसाधनं, हिंसात्वात्, क्रतुबाह्यहिंसावदि'ति। अत्र हिंसात्वं नाधर्मप्रयोजकम्। किन्तु निषिद्धत्वम्। उपाधिरिति पूर्वमेवोपपादितत्वाद् व्याप्यत्वासिद्धोऽयं हेतुः। ननु साधनाव्यापकत्वे सति साध्यव्यापको यस्स उपाधिरिति तल्लक्षणम्। तच्च निषिद्धत्वे नास्ति। तत् कथं निषिद्धत्वमुपाधिरिति चेन्न। निषिद्धत्वेऽपि लक्षणसत्वात्। यत्र यत्राऽधर्मत्वं तत्र तत्र निषिद्धत्वमिति साध्यस्य व्यापकं निषिद्धत्वम्। न च यत्रयत्र हिंसात्वं तत्रतत्र निषिद्धत्वं, क्रत्वङ्गहिंसायां व्यभिचारादिति साधनाव्यापकं च। तदेवं त्रिविधोऽसिद्धः प्रदर्शितः।

Translation—(a) The third variety, व्याप्यत्वासिद्ध, occurs when the invariable concomitance of the reason is not ascertained. This happens in two ways—(1) When the reason does not coexist with the *probandum* and (2) When it is related to the *probandum* through an adventitious circumstance (उपाधि). An instance of the first kind is 'whatever exists is momentary like clouds; sound and other things do exist (and so are momentary). Here 'sound and other things' constitute the subject, 'momentariness' is the *probandum* and 'existence' is the *probans*. There is no proof to ascertain the invariable con-

comitance between 'existence' and 'momentariness'. [The syllogism being taken from a Buddhist author is expressed in their form as already explained under para 53 (c)].

(b) Now the second form of व्याप्यत्वासिद्ध, that caused by the presence of उपाधि, is being explained. In an inference like 'this son of Maitri is black because he is Maitri's son', 'blackness' is sought to be proved through the reason 'the fact of being Maitri's son'. But this reason is not a causal agent for 'blackness', and the real causal agent is 'feeding on leafy vegetables etc'. This causal agent is called उपाधि. So in the above inference 'feeding on leafy vegetables' acts as उपाधि, just as in the inference of smoke through fire as reason 'contact with wet fuel' is उपाधि. Because of this the reason 'being Maitri's son' is related to उपाधि and so becomes व्याप्यत्वासिद्ध.

(c) Another instance of व्याप्यत्वासिद्ध (with उपाधि) occurs in an inference like "killing in sacrifices produces demerit because it is 'killing' just like 'killing' outside sacrifices". Here 'killing' is not a causal agent for 'demerit', but 'prohibited-ness' which thus becomes उपाधि. This has been explained earlier (vide para 53d.), and so here also the reason is व्याप्यत्वासिद्ध, (Objection). The definition of उपाधि is that it is co-existent with the *probandum*, while at the same time it is *not* co-existent with the *probans*. This does not apply to 'prohibitedness' and so how can it become उपाधि here ? (Answer). Not so. The definition does apply to 'prohibitedness'. We have the व्याप्ति 'wherever there is demerit there is prohibitedness' and so it is co-existent with the *probandum*. At the same time we do *not* have the व्याप्ति 'wherever there is killing there is prohibitedness' as the latter is not observed in 'killing in sacrifices' (which is not prohibited). So it is *not* co-existent with the *probans*, 'killing', (and so becomes उपाधि). Thus the three forms of व्याप्यत्वासिद्ध have been explained.

Notes—All these points have been dealt with in some detail under para 53 of Part I and the notes thereunder may be referred to. In fact the whole of हेत्वाभास section here is a repetition as in so many other cases.

2. **विरुद्धः** [140] विरुद्धस्तु साध्यविपर्ययव्याप्तो हेतुः। यथा नित्यत्वे साध्ये कृतकत्वं हेतुः। कृतकत्वं हि साध्यविपर्ययेणाऽनित्यत्वेन व्याप्तम्। यत्कृतकं तत् खल्वनित्यमिति। अतः कृतकत्वं हेतुर्विरुद्धः।

Translation—A contradictory reason is that which has invariable concomitance with the opposite of the *probandum* in question; for instance when 'eternality' is to be established through the reason 'fact of being a product'. This reason has invariable concomitance with the opposite of the *probandum* as it is well-known that 'whatever is a product is non-eternal' (i.e. perishable). Therefore the reason कृतकत्व here is a 'contradictory' one.

3. **अनैकान्तिकः** [141] (a) साध्यसंशयहेतुरनैकान्तिकः, सव्यभिचार इति वा। स द्विविधः, साधारणासाधारणभेदात्। तत्र प्रथमः पक्ष-सपक्ष-विपक्षवृत्तिः यथा शब्दो नित्यः प्रमेयत्वादिति। अत्र हेतुः पक्षे शब्दे, सपक्षे नित्ये व्योमादौ, विपक्षे चानित्ये घटादौ वर्तते, सर्वस्यैव प्रमेयत्वात्। तस्मात् प्रमेयत्वं साधारणानैकान्तिकः।

(b) असाधारणस्तु सपक्षविपक्षव्यावृत्तः पक्षमात्रे वर्तमानः, यथा भूर्नित्या गन्धवत्वात्। अत्र हेतुस्सपक्षान्नित्याद्व्योमादेः, विपक्षादनित्याज्जलादेश्च व्यावृत्तः। गन्धवत्वस्य पृथिवीमात्रवृत्तित्वात्।

(c) व्यभिचारस्तु नियमासंभवात्। सपक्षविपक्षवतो हेतोः सपक्षवृत्तित्वे सति विपक्षाद्व्यावृत्तिरेव नियमः, गमकत्वात्। तस्य च साध्यविपरीतव्याप्तस्य तन्नियमाभावो व्यभिचारः। स च द्वेधा भवति, सपक्षविपक्षयोर्वृत्तौ, ताभ्यां व्यावृत्तौ च।

Translation—(a) That reason which carries doubt about the presence of the *probandum* (in the subject) becomes अनैकान्तिक (=having no fixity) or सव्यभिचार (=the inconstant one). It is of two kinds, the common one or too wide strayer and the uncommon one or too narrow strayer. The first one is that which exists in all the three, पक्ष (the subject), सपक्ष (positive instance), and विपक्ष (negative instance); as in the inference 'sound is eternal because it is knowable'. The reason (knowability here) exists in the subject sound, in positive instances like eternal ether etc. and also in negative instances like non-eternal jar etc, as all things are knowable. Hence 'knowability' here is a wide strayer (साधारणानेकान्त).

(b) The second form (असाधारण) is that reason which does *not* exist in both positive and negative instances, but exists only in the subject; as in the inference 'earth is eternal because it has smell.' Here the reason (having smell) does *not* exist in positive instances like eternal ether etc., as also in negative instances like non-eternal water etc., but exists only in earth as it is its exclusive quality.

(c) The inconstancy (व्यभिचार) of these reasons comes about by their not fulfilling the necessary condition. This condition here is that when there is both सपक्ष and विपक्ष, the reason should exist only in the सपक्ष and never in the विपक्ष. [Then only the infallibility of the व्याप्ति can be grasped]. When the reason is such that its opposite is what is concomitant with the *probandum*, (as when it strays into विपक्ष), it fails to fulfil the above condition. This failure is the fallacy व्यभिचार and this can occur in two ways either when the reason exists in both सपक्ष and विपक्ष (then it is साधारण) or when it does *not* exist in both (then it becomes असाधारण).

Notes—In para (c), perhaps the author means to say साध्यव्याप्तविपरीतस्य and not साध्यविपरीतव्याप्तस्य, which is the reading in all the editions and in the MSS seen by me. The latter reading would make व्यभिचार as only another form of विरोध (vide para 140).

4. **प्रकरणसमः** [142] यस्य प्रतिपक्षभूतं हेत्वन्तरमस्ति स प्रकरणसमः। सत्प्रतिपक्ष इति यावत्। तद्यथा—शब्दो नित्योऽनित्यधर्मानुपलब्धेः। अत्र हि विपरीतार्थसाधकं समानबलमनुमानान्तरं 'शब्दोऽनित्यो नित्यधर्मानुपलब्धेः' इति विद्यते, यः प्रतिपक्ष इत्युच्यते। यः पुनरतुल्यबलो न स प्रतिपक्षः। तथाहि। विपरीतार्थसाधकमनुमानं त्रिविधं भवति, उपजीव्यं, उपजीवकं, अनुभयं चेति। तत्राद्यं बाधकं बलवत्त्वात्। यथा—'परमाणुरनित्यः स्पर्शवत्त्वात् घटवदि'त्यस्य परमाणुसाधकानुमानं नित्यत्वं साधयदपि न प्रतिपक्षः। किन्तु बाधकमेव, उपजीव्यत्वात्। तच्च धर्मिग्राहकत्वात्। नहि प्रमाणेनाऽगृह्यमाणे धर्मिणि परमाणावनित्यत्वसाधकमनुमानमिदं सम्भवति, आश्रयासिद्धेः। अतोऽनेनानुमानेन परमाणुग्राहकस्य प्रामाण्यमप्यनुज्ञातम्। अन्यथाऽस्योदयाऽसंभवात्। तस्मादुपजीव्यं बाधकमेव। उपजीवकं

दुर्बलत्वाद् बाध्यम् । यथेदमेवाऽनित्यत्वानुमानम् । तृतीयस्तु सत्प्रतिपक्षः, समबलत्वात् ।

Translation—A reason becomes 'opposing or counter-balanced' (प्रकरणसम) when it is opposed by an equally strong reason to prove the opposite of the *probandum*. Hence it is also termed सत्प्रतिपक्ष, one having an equal opponent. For instance the inference 'sound is non-eternal, because it has no attributes of eternal things', has an equally strong one proving the opposite of the *probandum* in 'sound is *eternal* because it has no attributes of non-eternal things'. So the latter is an opponent of the former. If the second inference is not of equal strength it does not become the opponent of the first. It is like this. An inference which tries to prove the opposite of the *probandum* in the first falls under any of the three heads —(1) that on which the first one is dependent; (2) that which depends on the first; and (3) that which is neither of the two (i.e. independent). The first variety is only a hindrance being stronger than the primary inference; e.g. an inference like 'the atom is non-eternal because it has touch like a jar, is not opposed by the inference establishing the existence of the atom even though the same one proves the eternality of the atom also (the opposite of the first *probandum*, vide para 89). This is because the former is dependent on the latter as it is the latter one which establishes the existence of the subject itself (परमाणु). If the subject itself is not established by valid instruments of cognition, the inference proving non-eternality in it does not arise for want of the subject, and so it presupposes the inference establishing the existence of the atom and thus becomes dependent on it and consequently hindered (i.e. gets rejected) by it. The second variety (उपजीवक) being weaker than the original inference gets automatically rejected by the latter, as will happen when the two inferences of the first kind are reversed in their order (i.e. the one establishing the existence of the atom as the first and then the one proving non-eternality in it). The third variety (of opposing inference) is the real सत्प्रतिपक्ष as the

two are of equal strength and so get counter-balanced (thus preventing any valid conclusion).

5. **कालात्ययापदिष्टः** or **बाधः** [143] (a) यस्य प्रत्यक्षादिप्रमाणेन पक्षे साध्याभावः परिच्छिन्नस्स कालात्ययापदिष्टः। स एव बाधितविषय इत्युच्यते। यथाऽग्निरनुष्णः कृतकत्वाज्जलवत्। अत्रोष्णत्वं साध्याभावः प्रत्यक्षेणैव परिच्छिन्नः। यथा वा क्षणिकत्वे साध्ये प्रागुक्तं सत्वं हेतुः। तस्यापि साध्याभावोऽक्षणिकत्वं प्रत्यभिज्ञालक्षणप्रत्यक्षेण परिच्छिन्नम्। स एवायं घटो यो मया पूर्वमुपलब्ध इति प्रत्यभिज्ञया पूर्वानुभवजनितसंस्कारसहकृतेन्द्रियप्रभवया पूर्वापरकालावलम्बया पूर्वघटस्य स्थायित्वपरिच्छेदादिति।

(b) एते चासिद्धादयः पञ्च हेत्वाभासाः कथञ्चित् पक्षधर्मताद्यन्यतमहीनत्वादहेतवः स्वसाध्यं न साधयन्तीति।

Translation—(a) The stultified reason is that where the presence of the opposite of the *probandum* in the subject is ascertained by other means like perception etc. It is the same as what is called बाधित (= the annulled reason). Take for instance the inference 'fire is not hot because it is a product like water'. Here the opposite of the *probandum* (i.e. hot-ness) is ascertained by actual perception (and so the inference stands stultified). Another example occurs when 'momentariness' (क्षणिकत्व) is sought to be established through the reason 'existence' (सत्व)—vide para 139 (a). Here also the opposite of the *probandum* (i e. non-momentariness) is established by perception in the form of recognition (प्रत्यभिज्ञा), which is of the form 'this is the same jar that I had seen earlier'. This recognition comes from the impression of a past experience while seeing the jar again. It connotes two stages of time, the past (reflected by सः = the *previously* experienced) and the present (reflected by अयं = the one seen in front *now*). This therefore proves that the jar exists for some time (longer than a moment).

(b) These five kinds of fallacious reasons, असिद्ध etc., when they are lacking in one or the other out of the five conditions for a valid reason such as subsisting in the subject etc., do not serve as valid reasons as they do not prove the existence of the *probandum* in the subject.

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लक्षणदोषाः [144] येऽपि लक्षणस्य केवलव्यतिरेकिहेतोस्त्रयो दोषाः, अव्याप्ति-अतिव्याप्ति-असंभवाः, तेप्यत्रैवान्तर्भवन्ति । न तु ते पञ्चभ्योऽधिकाः । तथाहि । अतिव्याप्तिर्व्याप्यत्वासिद्धिः, विपक्ष-मात्रादव्यावृत्तत्वात् सोपाधिकत्वाच्च । यथा गोलक्षणस्य पशुत्वस्य । गोत्वे सास्नादिमत्वं प्रयोजक, न तु पशुत्वम् । तथाऽव्याप्तिर्भागा-सिद्धत्वम् । यथा गोलक्षणस्य शाबलेयत्वस्य । असंभवः स्वरूपा-सिद्धत्वम् । यथा गोलक्षणस्यैकशफवत्वस्येति ।

Translation—All definitions constitute reasons which have only purely negative concomitance (as they serve to separate the thing defined from other things not coming under that definition). Their defects are three in number :—अव्याप्ति = partial applicability; अतिव्याप्ति = over-applicability, and असम्भव = total inapplicability. All these defects come under these fallacies (हेत्वाभास) and are not additional to these five. For instance अतिव्याप्ति is a form of the fallacy व्याप्यत्वासिद्धि [vide para 139 (a)] as such a definition will not be excluded from all negative instances (विपक्ष) (vide para 46) and will also be related to उपाधि, as when a cow is defined as 'an animal' (पशु). Here the 'fact of having dewlap etc'. (सास्नादिमत्व) is the causal agent for 'being a cow' (गोत्व) and not 'animal-ness' (पशुत्व). [So सास्नादिमत्व becomes उपाधि]. Similarly अव्याप्ति is a form of भागासिद्धि (vide para 138a) as when the cow is defined as an animal having variegated colours (as this definition would apply only to a few cows). The third defect असंभव comes under स्वरूपासिद्धि as when the cow is defined as 'an animal with uncloven hoofs' (as this definition will not apply to any cow.).

Notes—The three defects of a definition (लक्षण) have been explained on p. 6 and how these definitions are केवलव्यतिरेक-हेतु's is explained on p. 81, para 46. 'How these three defective definitions come under हेत्वाभास's can be easily seen by using them as reasons in syllogisms; e.g. (1) in अयं गौः पशुत्वात् , सास्ना-दिमत्वं becomes उपाधि, for we have यत्र गोत्वं तत्र सास्नादिमत्वं—साध्यव्यापकत्वं—and we do not have the व्याप्ति, यत्र पशुत्वं तत्र सास्नादि-मत्वं as it fails in अश्व etc—साधनाव्यापकत्वं. For the other two cases, the inference, गौरितरेभ्यो भिद्यते, शाबलेयत्वात् or एकशफवत्वात् would provide the example.

(29) **छलम्** (The 14th category)

14. **छलम्** [145] अभिप्रायान्तरेण प्रयुक्तस्य शब्दस्याऽर्थान्तरं परिकल्प्य दूषणाभिधानं छलम्। यथा नवकम्बलोऽयमिति वाक्ये नूतनाभिप्रायेण प्रयुक्ते, अर्थान्तरमाशंक्य कश्चिद् दूषयति—नास्य नव कम्बलाः दरिद्रत्वात्। नास्य द्वावपि सम्भाव्येते, कुतो नवेति। स वादी छलवादितया ज्ञायते।

Translation—When someone uses a certain word (or words) in one sense and if the hearer were to find fault with it by construing it in a different sense, this practice is called **छल** or quibbling. For instance when one says '**नवकम्बलोऽयं**' meaning thereby that 'this man has a *new* blanket', the hearer scoffs at the speaker; "He is too poor to have *nine* blankets. He has not even two. What to speak of *nine* !" One who argues thus is called a **छलवादिन्** or a quibbler.

Notes—Here the word **नव** is used by the speaker in the sense of 'new' but taken by the hearer as meaning 'nine' (usually wantonly to find fault with the speaker). This happens usually with *double entendre* words. Instances of other kinds are '**रामौ नारी**', '**कृष्णो वाच्यः**' etc., if the **सन्धि** is taken mistakenly.

(30) **जातिः** (The 15th category)

15. **जातिः** [146] असदुत्तरं जातिः। सा चोत्कर्षापकर्षसमादिभेदेन बहुविधा। विस्तरभिया नेह कृत्स्नमुच्यते। तत्र व्याप्तेन दृष्टान्तगतधर्मेण पक्षेऽव्यापकधर्मस्यापादनमुत्कर्षसमा। यथा शब्दोऽनित्यः कृतकत्वात् घटत्वदित्युक्ते कश्चिदेवमाह। यदि कृतकत्वेन शब्दोऽनित्यः स्यात् तर्हि तेनैव हेतुना तद्वदेव शब्दस्सावयवोऽपि स्यात्। अपकर्षसमा तु दृष्टान्तगतधर्मेणाऽव्याप्तेनाऽव्यापकस्य धर्माभावस्यापादनम्। यथा पूर्वस्मिन् प्रयोगे कश्चिदेवमाह। यदि कृतकत्वेन हेतुना घटवच्छब्दोऽनित्यः, तेनैव हेतुना तद्वदेव शब्दः श्रावणोऽपि न स्यात्। नहि घटः श्रावण इति।

Translation—An incorrect rejoinder constitutes **जाति** or futile objection. It is of many kinds such as **उत्कर्षसमा**, **अपकर्षसमा**, etc. [N. S. V. 1-1 enumerates 24 varieties]. For fear of

unnecessary elaboration all these are not being explained here (but only two as models). When (on hearing a syllogism) one argues that the subject should possess another property also which exists in the corroborative example, but which is not concomitant with the *probandum*, it becomes उत्कर्षसमा जातिः. For instance when one says 'sound is non-eternal because it is a product like a jar', the opponent argues 'if so, like a jar, sound should also be a composite thing (सावयव) for the same reason (कृतकत्व). When, through some property which is not concomitant with the reason but is found in the corroborative example, one asserts the 'opposite of that property, with which the reason is not concomitant, this amounts to अपकर्षसमा जातिः. For example in the same inference as above (proving non-eternality in sound) the opponent begins to argue ; 'if sound is non-eternal being a product like a jar, then for the same reason it should be non-audible like a jar as the jar is certainly not audible'.

Notes—In the first case सावयवत्व is not a property of sound and merely because it *co-exists* (and is not concomitant) with कृतकत्व in the jar, its presence in sound is wantonly ascribed hoping to discredit the first reason. Similarly श्रावणत्वाभाव is found to *co-exist* (and not concomitant) with कृतकत्व in a jar and so its negation, i.e. श्रावणत्व is being *denied* in the subject in question (sound) and hence the incorrectness or futility in both cases.

(31) निग्रहस्थानम् (The 16th category)

16. **निग्रहस्थानम्** [147] पाराजयहेतुर्निग्रहस्थानम् । तच्च न्यून-अधिक-अपसिद्धान्त-अर्थान्तर-अप्रतिभा-मतानुज्ञा-विरोधादिभेदाद् बहुविधमपि विस्तरभिया नेह कृत्स्नमुच्यते । यद्विवक्षितार्थात् किञ्चिन्न्यूनं तन्न्यूनम् । विवक्षितार्थात् किञ्चिदधिकमधिकम् । सिद्धान्तादपध्वंसोऽपसिद्धान्तः । प्रकृतेनाऽनभिसम्बद्धार्थवचनमर्थान्तरम् । उत्तराऽपरिस्फूर्तिरप्रतिभा । पराभिमतस्याऽर्थस्य स्वप्रतिकूलस्य स्वयमेवाऽभ्यनुज्ञानं स्वीकारो मतानुज्ञा । इष्टार्थभङ्गो विरोधः ।

Translation—A vulnerable point (or clincher) is that by which the opponent is defeated. It is of many kinds such as

(1) न्यून = Deficiency, (2) अधिक = Superfluity; (3) अपसिद्धान्त = deviation from established conclusions; (4) अर्थान्तर = Irrelevancy; (5) अप्रतिभा = Inability to find the (correct) answer; (6) मतानुज्ञा = Accepting the opponents view; (7) विरोध = contradiction; and so forth. [The N. S. enumerates 22 such varieties including हेत्वाभास also as the last in V. 2-1]. All these are not being explained here for fear of unnecessary elaboration. [The author has selected at random seven of the important ones for illustration]. (1) When what is said falls short of what is intended it is न्यून. (2) When it is more than what is necessary it becomes अधिक. (3) When it does not conform to established conclusions the fault becomes अपसिद्धान्त. (4) When something is said irrelevant to the topic under discussion it is अर्थान्तर. (5) When one is not able to find the correct answer (within a reasonable time) it is अप्रतिभा. (6) When one acquisces in the opponent's view which is contrary to his own it is called मतानुज्ञा. (7) When one contradicts his own previous statement it becomes विरोध.

Notes—छल, जाति and निग्रहस्थान have been briefly referred to under हेत्वाभास in Pt. I, vide p. 109–110. The importance attached to these defects even during the Sūtra period shows that the Nyāya system was developed by Gautama more as a science of argumentation and that even minor slips of the tongue or memory were not tolerated in the least. All these are minor defects which everyone should avoid even in ordinary talking and writing. वात्स्यायन's comments while defending the explanation of जल्प and वितण्डा in his भाष्य under Sūtra IV. 2. 50. are applicable here also. 'अनुत्पन्नतत्त्वज्ञानानां, अप्रहीणदोषाणां, तदर्थं घटमानानामेतदिति'.

It is of interest to note that while the Buddhists and Jainas who were the toughest opponents at that time, were vehement in their denunciation of छल, जाति and निग्रहस्थान (as also of जल्प and वितण्डा), they were in no way backward in using such means in their works and in explaining a greater number of varieties of जाति and निग्रहस्थान (vide धर्मकीर्ति and अकलङ्क to mention only a representative from those two schools). It was only after the तत्त्वचिन्तामणि of गंगेश took roots in the minds of the learned did the attention on these unimportant topics wane. In fact the study of the N. V. Sūtras and their Bhāṣyas

also was thrown into oblivion since then, from where an inquisitive student will have to dig out these classics at present. The प्रकरण's in logic written under the influence of नव्यन्याय do not even make a passing reference to these and K. M. also has spared the reader by showing only a few typical examples under each and that too perhaps out of his eagerness to follow the सूत्रकार as much as possible.

(32) उपसंहारः (Conclusion)

[148] इहात्यन्तमुपयुक्तानां स्वरूपभेदेन भूयोभूयः प्रतिपादनं, अनतिप्रयोजनानामप्रतिपादनं च न दोषाय। एतावतैव बालव्युत्पत्तिसिद्धेः।

इति केशवमिश्रप्रणीता तर्कभाषा समाप्ता।

Tranlation—In this book those topics which are extremely useful have been explained over and over again [e.g. आत्मा, बुद्धि, शरीर, मनः, इन्द्रिय, हेत्वाभास etc], and those that are not so useful are left out (without detailed explanation]. This will not be considered a defect as this much would suffice for the enlightenment of a beginner in Nyāya.

Thus ends the work Tarka Bhāṣā written by Keśava Miśra.

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CORRIGENDA

(b. denotes that lines are to be counted from bottom)

Introduction

Page No.	Line	Instead of	Read
28	14	mehod	method
33	7(b)	17	29
34	5	17 and 18	18 and 19
44	6(b)	Put a full stop after improvements, omit the words 'and here' and begin with capital 'W'	
44	4(b)	Insert the word 'Sastri' between Lal bahadur and Kendriya.	
44	3(b)	an	and

Text

Page No.	Line	Instead of	Read
3	1(b)	thouh	though
3	8(b)	haso mitted	has omitted
4	19	सिद्धान्न	सिद्धान्त
5	7(b)	तत्रोदेश	तत्रोद्देश
7	8	differentio	differenti-
7	11(b)	प्रमाण	प्रमाणं
8	7	स्मृतेनिरासः	स्मृतेर्निरासः
9	9	साधक	साधकं
11	22	accidently	accidentally
11	3(b)	प्रसगात	प्रसंगात्
12	9	cherefore	therefore
13	19	साम्रियध्यम	सान्निध्यम्
13	7(b)	subsists	subsist
13	1(b)	विनयश्यत्ता	विनश्यत्ता
14	19	above.	above).
14	12(b)	पदार्थं:	पदार्थाः
15	1	अवयविन	अवयविन्
17	17	बन्धात्त	बन्धात्तु
22	10	द्वियीय	द्वितीय
22	11	भावादद्रव्य	यावाद् द्रव्य
23	7(b)	मेवम्	मैवम्
25	4	रूपता	रूपिता
25	19	कापाल	कपाल
26	6(b)	(1-1-2)	(1-1-4)

17

Page No.	Line	Instead of	Read
27	17		After give add here itself
28	4(b)	varities	varieties
29	16	rigour	rigor
30	4	II	11
34	19	Between the and Buddhists add Bhāṭṭa Mīmāṁsakas and some	
35	15	यार्दीनि	यादीनि
37	16	थं	यं
37	17	ब्रह्म	ब्राह्म
37	18	कमेव	कमव
41	4	नहि सा	न सो
41	21	आलाचन	आलोचन
42	10	निविषय	निर्विषय
43	8	निविक	निर्विक
43	22	हाना	हानो
43	27	बुाद्ध	बुद्धि
43	28	सवक	सविक
43	4(b)	srte	stre
47	4(b)	इहं	इह
49	20	(रसना of	रसना, (of
57	15	vition; and so on,"	nition;" and so on.
60	5(b)	तस्मालिङ्ग	तस्माल्लिङ्ग
64	14(b)	vide p.	vide p. 96
66	2	system of logic	*system of Logic*
68	3(b)	मप्तर्थं	मप्यर्थं
78	7(b)	साध्या भावी	साध्याभावो
85	10	साधम्य	साधर्म्यं
85	21	विपरीम्	विपरीतम्
85	9(b)	शब्दा	शब्दो
87	22	AGC	AFC
87	23	HGK	HFK
87	3(b)	AKC	AJC
88	17	AKC	AJC
88	1(b)	तद्मम	तद्म

Page No.	Line	Instead of	Read
89	6	न्वयतिरेकी	न्वयव्यतिरेकी
91	9	अनैकान्तिक	अनेकान्त
94	2	if	of
95	21	अनै	अन
99	11(b)	आद्धाति	आद्धाति
108	6	eternal	non-eternal
109	12	sqllogism	syllogisms
114	16	Gold	gold
122	11(b)	फल	फलं
126	3(b)		close bracket) after moment.
129	10(b)	भातायाथा	भाता यथा
130	10	इतीश्च	इतीश्व
130	5(b)	views	view
131	21	मद्व	मद्व
139	12(b)	युक्ते	भुंक्ते
144	6	प्राप्यकारि	प्राप्यप्रकाशकारि
146	9	नष्यु	नाष्यु
146	8(b)	beecome	become
147	5		After Answer add True.
150	10(b)	it	its
151	3	reet	rect
152	2	तत्	तज्
153	7(b)	whlch	which
155	11(b)	ग्रहक	ग्राहक
157	17	ग्रह्य	ग्राह्य
157	3(b)	th	this
160	8(b)	अयं	इयं
161		At the top below पूर्वभागः	add the heading (10) ख्यातिवादः
161	1(b)	cognition	cognitions
163	16	वान्यया	वान्यथा
164	6		Before S.K.S. add Prof:
165	3	(1)	(11)
166	5	in	is

Page No.	Line	Instead of	Read
170	4		After तीन्द्रियम add इन्द्रियम्
175	8(b)	अप्प्	अप्
177	11	Bh : s	Bh:'s
177	16	तुवि	तुर्वि
179	9	In this and following lines for द्व्णुक (in next page also) wherever it occurs read द्व्यणुक	
182	14	liket his	like this
185	17	श्वतु	श्वतु
192	1(b)	कारिक	कारिका
194	5	अभा	भा
197	6(b)	Brahmas'	Brahma's and delete after a
199	16	मीश्व	मीश्व
200	6	णमि	णनि
201	6	substance	substances
205	17	णः !	णः ।
207	22	it	its
209	21	क्षणि	क्षणिक
213	12(b)	सा । चा	सा चा
218	5(b)	भ्रमे	भ्रम
219	1	नेऽथन	नेऽर्थेन
221	9(b)	न्स्य	स्य
222	1(b)	he	the
226	3	प्रयाज्ञनम्	प्रयोजनम्
226	1(b)	establlshed	established
228	14	Omit comma after possessing	
232	8	After (असिद्ध) close the quotation,"	
233	12	Before 'Here' mark (b) and begin a fresh paragraph.	
235	16	After cause put a full stop (.) and omit the dash.	
241	3	कालात्यायपदिष्टः	कालात्ययापदिष्टः
243	10(b)	घटत्वत्	घटवत्
245	16	acquisces	acquiesces